GENERAL PLAN AMENDMENT AND REZONING ON SEVEN AIRPORT PARCELS AIR QUALITY & GREENHOSE GAS ASSESSMENT

San José, 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 buildout of the proposed General Plan Amendment (GPA) and Rezoning of Seven Airport-Owned Parcels located in San José, California. The air quality impacts from this GPA and Rezoning would be associated with construction of the new buildings and infrastructure and operation of the project. Air pollutants associated with construction and operation are addressed qualitatively since construction and operational details are not known at the level necessary to predict meaningful quantitative impacts. All analyses were conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

BACKGROUND

The seven parcels are within the approximately 120-acre area known as the Guadalupe Gardens and formerly known as the "Coleman Loop" immediately south of the Norman Y. Mineta San José International Airport (SJC). The area is bounded by Interstate 880, the Guadalupe River, and Coleman Avenue, and is under the primary flight path for SJC. A regional map of the area indicating the project site locations is shown in Figure 1. Existing development within the area includes light and heavy industrial, automobile shops, and self-storage uses.

Figure 1. GPA/Rezoning Area and Project Site Locations

[1] Bay Area Air Quality Management District, *2022 CEQA Guidelines*, April 2023

PROJECT DESCRIPTION

The project proposes a GPA and rezoning of seven City-owned parcels located in the Guadalupe Gardens. The subject parcels and parcel information are listed in Tables 1 and 2 and are shown in Figure 1 above. On each of the seven parcels, the existing *Envision San José 2040 General Plan* Land Use Designation of Open Space Parks Habitat would be changed to Combined Industrial-Commercial and each parcel would be rezoned to Planned Development. With the new General Plan Land Use Designation and rezoning in place, the City intends to market the seven parcels for development that is consistent with the underlying purpose of the parcels for aviation-related objectives.

Table 1. List of Proposed Changes to General Plan Land Use Designations and Zonings

Map ID	Assessor Parcel Number	Parcel Size[1]	Parcel Location	Existing Land Use	General Plan Land Use Designation		Zoning	
					Existing	Proposed	Existing	Proposed
1	259-02-130	2.90	SE corner Coleman Ave / University Ave	Vacant	Open Space, Parkland & Habitat (OSPH)	Combined Industrial Commercial (CIC)	Residential (R-2)	Planned Development (PD)
2	259-02-131	3.19	NE corner Coleman Ave / University Ave	Vacant	Open Space, Parkland & Habitat (OSPH)	Combined Industrial Commercial (CIC)	Open Space (OS)	Planned Development (PD)
3	259-08-072	0.07	East side of Coleman Ave, south of Asbury St.	Vacant	Open Space, Parkland & Habitat (OSPH)	Combined Industrial Commercial (CIC)	Open Space (OS)	Planned Development (PD)
4	259-08-101 (westerly Portion only)	0.18	East side of Coleman Ave, south of Asbury St.	Vacant	Open Space, Parkland & Habitat (OSPH)	Combined Industrial Commercial (CIC)	Open Space (OS)	Planned Development (PD)
5	259-08-102	3.19	SE corner Emory St./ Coleman Ave	Vacant	Open Space, Parkland & Habitat (OSPH)[2]	Combined Industrial Commercial (CIC)	Light Industrial (LI)	Planned Development (PD)
6	230-38-076	0.36	NW corner Ruff Drive/ Hedding St.	Vacant	Open Space, Parkland & Habitat (OSPH)	Combined Industrial Commercial (CIC)	Open Space (OS)	Planned Development (PD)
7	230-38-092	0.37	NE corner Spring St./ Hedding St.	Vacant	Open Space, Parkland & Habitat (OSPH)	Combined Industrial Commercial (CIC)	Commercial Pedestrian (CP)	Planned Development (PD)

[1] Acreage reflects the portion of the parcel that would be subject to the GPA and rezoning. For each of the five parcels located along Coleman Ave, the acreage shown takes into account 1) the City's planned widening of Coleman Ave to six lanes, which will require a strip of additional right-of-way along the east side of Coleman Ave approximately 50 feet in width, and 2) the City's planned relinquishment of right-of-way from portions of University Ave and Emory Street.

[2] Due to a previous mapping error, two small portions of this parcel are shown with a LI General Plan Land Use Designation. The project proposes to change this designation to CIC.

Table 2. Proposed Densities and Structure Heights

Map ID	Assessor's Parcel Number	Parcel Size (acres)	Approximate Maximum Size of Buildings	Maximum Height of Structures	
				Above Mean Sea Level (MSL)	Above Ground Level (AGL)
1	259-02-130	2.90	75,750 ft^2	101 feet to 109 feet	31 feet to 39 feet
2	259-02-131	3.19	83,250 ft^2	91 feet to 100 feet	21 feet to 30 feet
3	259-08-072	0.07	1,860 ft^2	121 feet to 122 feet	50 feet to 51 feet
4	259-08-101 (westerly portion only)	0.18	4,800 ft^2	122 feet to 123 feet	51 feet to 52 feet
5	259-08-102	3.19	83,400 ft^2	111 feet to 119 feet	41 feet to 49 feet
6	230-38-076	0.36	n/a[1]	87 feet to 90 feet	22 feet to 25 feet
7	230-38-092	0.37	9,660 ft^2	87 feet to 89 feet	22 feet to 24 feet
		Total:	**258,720 ft^2**		

[1] APN 230-38-076 shows no buildings since that parcel is directly under the extended centerline of Runway 12L/30R and the Airport Land Use Commission prohibits new structures in the Inner Safety Zone within 100 feet of an extended runway centerline

REGULATORY FRAMEWORK

Air pollutants are governed by multiple federal and state standards to regulate and mitigate health impacts. The pollutants regulated by the US EPA include "criteria" pollutants and 188 air toxics referred to as hazardous air pollutants (HAPs). Considering all the HAPs, the EPA has identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers or contributors and non-hazard contributors. These are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (DPM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter.

The State of California also regulates criteria pollutants, which include the federal list but also adds pollutants specific to certain industries, such as hydrogen sulfide and vinyl chloride. The State also regulates HAPs, which are referred to as toxic air contaminants (TACs). The common pollutants, their potential sources, and effects are summarized in Table 3.

Table 3. Health Effects of Air Pollutants

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

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

Federal Air Quality Regulations

At the federal level, the EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990. Pursuant to the FCAA of 1970, the EPA established National Ambient Air Quality Standards (NAAQS) for the following criteria pollutants:

Ozone (O_3) -Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_X). The main sources of ROG and NO_X, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the single largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone is a powerful oxidant that is harmful to public health at high concentrations. Ozone, at high levels, can damage the tissues of the lungs and respiratory tract. High concentrations of ozone irritate the nose, throat, and respiratory system and constrict the airways.[2] Ozone also can aggravate other respiratory conditions such as asthma, bronchitis, and emphysema, causing increased hospital admissions. Repeated exposure to high ozone levels can make people more susceptible to respiratory infection and lung inflammation and permanently damage lung tissue. Ozone can also have negative cardiovascular impacts, including chronic hardening of the arteries and acute triggering of heart attacks.

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

Nitrogen Dioxide - Nitrogen Dioxide (NO_2) is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection.

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

[2] See: California Air Resource Board, Web: https://ww2.arb.ca.gov/resources/ozone-and-health

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

Lead - Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline in the 1990's, metal processing is currently the primary source of lead emissions. The highest levels of lead emissions are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufactures.

NAAQS include both primary and secondary standards. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.[3] Areas (i.e., air basins) that do not meet the NAAQS, or nonattainment areas, are required to develop State Implementation Plans (SIPs) that are designed to bring them into attainment of the NAAQS by specific dates.

The FCAA Amendments of 1990 changed deadlines for attaining NAAQS as well as the remedial actions required of areas of the nation that exceed the standards. Conformity with an area's SIP requirements satisfy the FCAA requirements for a given project.

State Air Quality Regulations

California Clean Air Act

In 1988, the CCAA established its own, more stringent ambient air quality standards, known as California Ambient Air Quality Standards (CAAQS). The CCAA requires that all air basins in the state endeavor to achieve and maintain CAAQS for CO, O_3, SO_2, and NO_2 by the earliest practical date. The CCAA establishes local air districts and provides them with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment area in the State is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, for each nonattainment pollutant or its precursors. A Clean Air Plan is a SIP that shows how a district would reduce emissions to achieve air quality standards.

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

California Air Resources Board

The California Air Resources Board (CARB) is the agency responsible for coordination with the EPA and developing SIPs to achieve and maintain both the NAAQS and CAAQS. As a result, it has oversight of the state's air pollution control programs. Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, and off-road vehicles.

California Air Resources Board Handbook

In 1998, CARB identified particulate matter from diesel-fueled engines (i.e., DPM) as a toxic air contaminant. CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[4] CARB subsequently developed an Air Quality and Land Use Handbook[5] (Handbook) in 2005 that is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. The 2005 CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds.

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

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.
- Within 300 feet of gasoline fueling stations (note that new fueling stations utilize enhanced vapor recovery systems that substantially reduce emissions).
- Within 300 feet of dry-cleaning operations (note that dry cleaning with TACs is being phased out and will be prohibited in 2023).

Advanced Clean Cars

The Advanced Clean Cars Program, 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.

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

This recent rule, *Advanced Clean Cars II (ACC II)* is phase two of the original rule. ACC II establishes a year-by-year process, starting in 2026, to have all new cars and light trucks sold in California be zero emission vehicles (ZEVs) by 2035. 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.

On-road Heavy-Duty Diesel Vehicle Regulations

CARB is actively enforcing on-road heavy-duty diesel vehicle regulations that require fleets to replace or retrofit older heavy-duty diesel vehicles. As of January 1, 2020, the DMV cannot register any vehicle that does not meet the diesel engine replace/retrofit requirements. Other CARB diesel programs affecting heavy-duty diesel vehicles include:

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

Advanced Clean Trucks (ACT)

California's Advanced Clean Trucks (ACT) rule increases the percentage of medium and heavy-duty trucks sold as ZEVs beginning in 2024. By 2035, 40 to 75 percent of new trucks sold, depending on size, would have to meet ZEV requirements. In addition, large employers including retailers, manufacturers, brokers, and others are required to report about their existing fleet operations and report information about shipments and shuttle services with 50 or more trucks,.

Off-Road Vehicle and Equipment Regulations

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

Fleet owners must report the vehicle and engine information for all vehicles within their fleets operating in California. Fleet owners must also report owner information using DOORS, which is

CARB's online reporting tool. CARB issues a unique Equipment Identification Number (EIN) that is assigned to each vehicle. The fleet owner must label their vehicles with the EIN.

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

- Idling limits of no more than 5 minutes with special exceptions.
- Portable engines 50 hp or greater may require a permit or registration to legally operate.

Bay Area Air Quality Management District

The BAAQMD is the local air quality management authority charged with attainment of the NAAQS/CAAQS and maintenance of air quality in the San Francisco Bay Area Air Basin (SFBAAB). They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. The BAAQMD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by law.

<u>BAAQMD Rules and Regulations</u>

Emissions from appliances and equipment installed within the planning area are subject to BAAQMD permitting rules and regulations. The BAAQMD Rules and Regulations that apply to the project area include:

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

Note that the listing below provides a comprehensive overview of BAAQMD regulations, but not all are applicable to the proposed uses that would be constructed by the project.

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. BACT will be required for NOx emissions if the project proposes to install diesel-fueled generator engines.

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

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 ACTM contains limits that 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 requires 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

Rule 6-2 applies to emissions from commercial kitchens. Effective January 1, 2009, no person shall operate a charbroiler unless it is equipped and operated with a certified catalytic oxidizer or exhausted through a certified controlled device.

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.

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

Rule 9-1 applies to sulfur dioxide. Any engines associated with the project 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's) per hour

Rule 9-8 prescribes NOx and CO emission limits for stationary internal combustion engines..

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 (PM_{10} or $PM_{2.5}$) limit is 0.15 g/hp-hr per CARB's ACTM.

- I.C. Engine – Compression Ignition >999hp: BAAQMD applies specific BACT emission limits for stationary emergency standby diesel engines equal or larger than 1,000 brake-horsepower (BHP). NOx emission factor limit is 0.5 g/hp-hr. The PM (PM_{10} or $PM_{2.5}$) limit is 0.02 g/hp-hr. POC (i.e., ROG) limits are 0.14 g/hp-hr.

Clean Air Plan

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

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

Planning Healthy Places

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

BAAQMD California Environmental Quality Act Air Quality Guidelines

The BAAQMD California Environmental Quality Act (CEQA) Air Quality Guidelines[6] 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 TACs, odors, and GHG emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of their CEQA Guidelines. In May 2011, the updated BAAQMD CEQA Air Quality Guidelines were amended to include a health risk and hazards threshold for new receptors and modify procedures for assessing impacts related to TAC impacts. The Guidelines were then updated in May 2017 and again in April 2023, and this version serves as the Air District's most recent CEQA guidance. The updated 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 include assessment methodologies for air toxins, odors, and GHG emissions.

Per Appendix G of the CEQA Guidelines, air quality and GHG impacts are considered significant if implementation of the General Plan (or specific area plan) would:

1) Conflict with or obstruct implementation of an applicable air quality plan.
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
3) Expose sensitive receptors to substantial pollutant concentrations.

[6] Bay Area Air Quality Management District, *2022 CEQA Guidelines*, April 2023

4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
5) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
6) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Additionally, specific projects within a planning area that have TAC emissions that could adversely affect sensitive receptors must prepare a health risk assessment to quantify the potential risks to the community and, if appropriate, identify mitigation measures to reduce impacts.

The BAAQMD's current significance thresholds are listed in Table 4 and Table 5. Though not necessarily a CEQA issue, the effect of existing TAC sources on future sensitive receptors (e.g., residences) is requested by BAAQMD to comply with the 2017 Clean Air Plan's key goal of reducing population TAC exposure and protecting public health in the Bay Area.

Table 4. BAAQMD Plan-Level Air Quality Significance Thresholds

Pollutant/ Contaminant	Construction	Operational
Criteria Air Pollutants and Precursors	None	1. Consistency with Current Air Quality Plan control measures. 2. Projected vehicle miles traveled (VMT) or vehicle trip increase is less than or equal to projected population increase.
Risks and Hazards	None	1. Overlay zones around existing and planned sources of TACs (including adopted Risk Reduction Plan areas). 2. Overlay zones of at least 500 feet from all freeways and high-volume roadways. For this analysis – overlay zones are based on potential for sources to result in the following impacts: 1. Excess cancer risk >10.0 chances per million 2. Annual $PM_{2.5}$ Concentration > 0.3 µg/m^3 3. Hazard Index >1.0
Odors	None	Identify the location, and include policies to reduce the impacts, of existing or planned sources of odors
Greenhouse gases	None	1. Meet State's goals to reduce emissions to 40% below 1990 levels by 2030 and carbon neutrality by 2045; **OR** 2. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b)

Table 5. BAAQMD Project-Level Air Quality Significance Thresholds

<table>
<tr><th rowspan="2">Criteria Air Pollutant</th><th colspan="2">Construction Thresholds</th><th colspan="2">Operational Thresholds</th></tr>
<tr><th colspan="2">Average Daily Emissions (lbs./day)</th><th>Average Daily Emissions (lbs./day)</th><th>Annual Average Emissions (tons/year)</th></tr>
<tr><td>ROG</td><td colspan="2">54</td><td>54</td><td>10</td></tr>
<tr><td>NO_X</td><td colspan="2">54</td><td>54</td><td>10</td></tr>
<tr><td>PM_{10}</td><td colspan="2">82 (Exhaust)</td><td>82</td><td>15</td></tr>
<tr><td>$PM_{2.5}$</td><td colspan="2">54 (Exhaust)</td><td>54</td><td>10</td></tr>
<tr><td>CO</td><td colspan="2">Not Applicable</td><td colspan="2">9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)</td></tr>
<tr><td>Fugitive Dust</td><td colspan="2">Construction Dust Ordinance or other Best Management Practices (BMPs)*</td><td colspan="2">Not Applicable</td></tr>
<tr><th>Health Risks and Hazards</th><th colspan="2">Single Sources/ Individual Project</th><th colspan="2">Combined Sources (Cumulative from all sources within 1000-foot zone of influence)</th></tr>
<tr><td>Excess Cancer Risk</td><td>>10 in a million</td><td rowspan="3">OR Compliance with Qualified Community Risk Reduction Plan</td><td>>100 in a million</td><td rowspan="3">OR Compliance with Qualified Community Risk Reduction Plan</td></tr>
<tr><td>Hazard Index</td><td>>1.0</td><td>>10.0</td></tr>
<tr><td>Incremental annual $PM_{2.5}$</td><td>>0.3 µg/m³</td><td>>0.8 µg/m³</td></tr>
<tr><th colspan="5">Greenhouse Gas Emissions</th></tr>
<tr><td>Land Use Projects – (Must Include A or B)</td><td colspan="4">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 usage 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. Achieve a reduction in project-generated 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:
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. 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).</td></tr>
<tr><td colspan="5">Note: ROG = reactive organic gases, NO_X = 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.
* BAAQMD strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses.</td></tr>
</table>

Source: Bay Area Air Quality Management District, 2022

The BAAQMD recommends all projects include a "basic" set of best management practices (BMPs) to manage fugitive dust and consider impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) during construction to be less than significant if BMPs are implemented. The project would be required to implement the following BMPs recommended by BAAQMD, which have been adopted by the City of San José as Standard Permit Conditions, during all phases of construction to reduce dust and other particulate matter emissions.

Basic Best Management Practices / Standard Permit Conditions: **Include measures to control dust and exhaust during construction.**

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following BMPs that are required of all projects:

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. BAAQMD’s General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

BAAQMD strongly encourages enhanced BMPs for construction sites near schools, residential areas, or other sensitive land uses. Enhanced measures include:

- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.

- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.

- Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

- Minimize the amount of excavated material or waste materials stored at the site.

- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

CARE Program

The 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.[7] 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 has been 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 has been used to focus emission reduction measures in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. The BAAQMD has identified six communities as impacted: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo Alto, and Eastern San Francisco.

Overburdened Communities Program

To address localized health impacts in Bay Area communities, BAAQMD staff met with community advocacy organizations to develop concepts and recommendations on how the air district could be more health protective. Through a series of public workshops and a public comment period, BAAQMD amended Rule 2 (i.e., Regulation 2-1-24) in 2021. It identifies an *overburdened* community as an area located (i) within a census tract identified by the California Office of Environmental Health Hazard Assessment's (OEHHA's) Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0, as having an overall score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract. Projects in overburdened

[7] See BAAQMD: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program.

communities must conduct specific public involvement activities and stationary sources are subject to specific permitting requirements.

San José Envision 2040 General Plan

The San José Envision 2040 General Plan includes goals, policies, and actions to reduce exposure of the City's sensitive population to exposure of air pollution and toxic air contaminants or TACs. The following goals, policies, and actions relevant to air quality are contained in the *Environmental Leadership*, *Quality of Life,* and *Land Use and Transportation* Chapters:

Environmental Leadership.

Goal MS-1 **Green Building Policy Leadership.** Demonstrate San José's commitment to local and global Environmental Leadership through progressive use of green building policies, practices, and technologies to achieve 100 million square feet of new or retrofitted green buildings by 2040.

Policies:

MS-1.1 Demonstrate leadership in the development and implementation of green building practices. Ensure that all projects are consistent with or exceed the City's Green Building Ordinance and City Council Policies as well as State and/or regional policies which require that projects incorporate various green building principles into their design and construction.

MS-1.2 Continually increase the number and proportion of buildings within San José that make use of greening building practices by incorporating those practices into both new construction and retrofit of existing structures.

MS-1.3 Continually update and strengthen the City's Green Building policies and ordinances for new construction and rehabilitation of existing buildings to provide flexibility for application of new technologies and innovative techniques that may develop in the green building field.

MS-1.4 Foster awareness in San José's business and residential communities of the economic and environmental benefits of green building practices. Encourage design and construction of environmentally responsible commercial and residential buildings that are also operated and maintained to reduce waste, conserve water and meet other environmental objectives.

MS-1.5 Advocate for new or revised local, regional, state, or national policies and laws that further the use of green building techniques and to further the development of green building technology. Support the development and implementation of new and innovative technologies to achieve the construction of all types of environmentally high-performing buildings.

MS-1.6 Recognize the interconnected nature of green building systems, and , in the implementation of Green Building Policies, give priority to green building options that provide environmental benefit by reducing water and/or energy use and solid waste.

Goal MS-2 **Energy Conservation and Renewable Energy Use.** Maximize the use of green building practices in new and existing development to maximize energy efficiency and conservation and to maximize the use of renewable energy sources.

Policies:

MS-2.1 Develop and maintain policies, zoning regulations, and guidelines that require energy conservation and use of renewable energy sources.

MS-2.2 Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.

MS-2.3 Utilize solar orientation (i.e., building placement), landscaping, design, and construction techniques for new construction to minimize energy consumption.

MS-2.4 Promote energy efficient construction industry practices.

MS-2.6 Promote roofing design and surface treatments that reduce the heat island effect of new and existing development and support reduced energy use, reduced air pollution, and a healthy urban forest. Connect businesses and residents with cool roof rebate programs through City outreach efforts.

MS-2.7 Encourage the installation of solar panels or other clean energy power generation sources over parking areas.

Actions:

MS-2.11 Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).

MS-2.12 Update the Green Building Ordinance to require use of energy efficient plumbing fixtures and appliances that are Water Sense certified, Energy Star rated, or equivalent, in new construction and renovation projects.

Goal MS-3 **Water Conservation and Quality.** Maximize the use of green building practices in new and existing developments to minimize use of potable water and to reduce water pollution.

Policies:

MS-3.1 Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation needs or other area functions.

MS-3.2 Promote use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.

MS-3.3 Promote the use of drought tolerant plants and landscaping materials for non-residential and residential uses.

MS-3.4 Promote the use of green roofs (i.e., roofs with vegetated cover), landscape-based treatment measures, pervious materials for hardscape, and other stormwater management practices to reduce water pollution.

MS-3.5 Minimize areas dedicated to surface parking to reduce rainwater that comes into contact with pollutants.

Actions:

MS-3.6 Develop and maintain policies, ordinances, and guidelines that require reduced use of potable water and that reduce water pollution.

MS-3.7 Update the Green Building Ordinance to require installation of water efficient fixtures and appliances that are Water Sense certified, Energy Star rated, or equivalent during construction or renovation of bathrooms, kitchens, laundry areas, and/or other areas with water fixtures/appliances that are proposed to be replaced.

MS-3.8 Continue programs to educate the community on water conserving landscaping methods and materials to discourage the use of turf when it is not required for a specific function.

MS-3.9 Develop policies to promote water-use efficiency, particularly for water-intensive activities.

Goal MS-5 **Waste Diversion.** Divert 100% of waste from landfills by 2022 and maintain 100% diversion through 2040.

Policies:

MS-5.4 Increase program participation and reduce disposal of recyclable materials through intensive outreach, incentives, enforcement or mandates.

MS-5.5 Maximize recycling and composting from all residents, businesses, and institutions in the City.

MS-5.6 Enhance the construction and demolition debris recycling program to increase diversion from the building sector.

Actions:

MS-5.7 Develop ordinances to target reduction of single-use carryout bags and packaging that is difficult to recycle and not compostable in local programs. Adopt and implement new technologies that enable recycling of these materials.

Goal MS-6 **Waste Reduction.** Reduce generation of solid and hazardous waste.

Policies:

MS-6.1 Support programs and incentives to reduce the manufacture and use of materials that are difficult to recycle, are non-compostable substitutes for compostables, or hazardous to people and the environment.

MS-6.3 Encourage the use of locally extracted, manufactured or recycled and reused materials including construction materials and compost.

MS-6.5 Reduce the amount of waste disposed in landfills through waste prevention, reuse, and recycling of materials at venues, facilities, and special events.

MS-6.7 Support adoption of new technologies, including collection, sorting, and processing, that can maximize waste stream materials recovery.

MS-6.8 Maximize reuse, recycling, and composting citywide.

MS-6.11 Advocate at the State level for higher disposal fees for products that are designed for single use and for products that do not incorporate any post-consumer recycled content.

MS-6.12 Promote use of recycled materials, including reuse of existing building shells/elements, as part of new construction or renovations.

Goal MS-7 **Environmental Leadership and Innovation.** Establish San José as a nationally recognized leader in reducing the amount of materials entering the solid waste stream

Policies:

MS-7.1 Support zero waste legislation locally, regionally, and statewide.

MS-7.2 Collaborate with providers of solid waste collection, recycling, and disposal services to ensure a level of service that promotes a clean environment.

MS-7.7 Promote City operations that serve as a model for achieving zero waste.

MS-7.9 Adopt and implement programs that reduce the amount of materials entering the solid waste stream.

MS-7.10 Maintain and periodically update the Zero Waste Strategic Plan to establish criteria and strategies for achieving zero waste including reducing greenhouse gas emissions.

MS-7.11 Develop an incentives program to grow local markets for recyclable and reusable materials, including items such as paper, compost, and construction materials.

MS-7.13 Develop a schedule to discontinue the use of disposable, toxic or non-renewable products as outlined in the Urban Environmental Accords. City use of at least one such item shall be discontinued each year through the planning period. In the near-term, staff will monitor the regulation of single-use carryout bags to ensure that their use in the City is reduced by at least 50%, or shall propose enhanced regulation or an alternate product. In the mid-term, staff will evaluate all such products for regulation or for use in every recovery processes and shall recommend such regulations as are necessary to eliminate landfilling such products in the long-term (2022-2040).

MS-7.14 Provide on-going education about the environmental benefits of reducing wasteful consumption, which promotes the avoidance of products with excessive packaging, recycling, purchase of refills, separation of food and yard waste for composting, and using rechargeable batteries.

Goal MS-10 Air Pollutant Emission Reduction. Minimize air pollutant emissions from new and existing development.

Policies:

MS-10.1 Assess projected air emissions from new development in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

MS-10.2 Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.

MS-10.3 Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.

MS-10.4 Encourage effective regulation of mobile and stationary sources of air pollution, both inside and outside of San José. In particular, support Federal and State regulations to improve automobile emission controls.

MS-10.5 In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.

MS-10.6 Encourage mixed land use development near transit lines and provide retail and other types of service-oriented uses within walking distance to minimize automobile dependent development.

MS-10.7 Encourage regional and statewide air pollution emission reduction through energy conservation to improve air quality.

<u>Actions:</u>

MS-10.11 Enforce the City's wood-burning appliance ordinance to limit air pollutant emissions from residential and commercial buildings.

Goal MS-11 **Toxic Air Contaminants.** Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

<u>Policies:</u>

MS-11.2 For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.

MS-11.3 Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

<u>Actions:</u>

MS-11.6 Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of TACs and particulate matter smaller than 2.5 microns (PM2.5), emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible agencies, and periodic updates of the plan, as appropriate.

MS-11.7 Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

MS-11.8 For new projects that generate truck traffic, require signage that reminds drivers that the State truck idling law limits truck idling to five minutes.

Goal MS-12 Objectionable Odors. Minimize and avoid exposure of residents to objectionable odors.

Policies:

MS-12.1 For new, expanded, or modified facilities that are potential sources of objectionable odors (such as landfills, green waste and resource recovery facilities, wastewater treatment facilities, asphalt batch plants, and food processors), the City requires an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

Goal MS-13 Construction Air Emissions. Minimize air pollutant emissions during demolition and construction activities.

Policies:

MS-13.1 Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

MS-13.2 Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the California Air Resources Board's air toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.

Actions:

MS-13.4 Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

MS-13.5 Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.

MS-13.6 Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.

Goal MS-14 **Reduce Consumption and Increase Efficiency.** Reduce per capita energy consumption by at least 50% compared to 2008 levels by 2022 and maintain or reduce net aggregate energy consumption levels equivalent to the 2022 (Green Vision) level through 2040.

Policies:

MS-14.1 Promote job and housing growth in areas served by public transit and that have community amenities within a 20-minute walking distance.

MS-14.4 Implement the City's Green Building Policies (see Green Building Section) so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption.

Goal MS-17 **Responsible Management of Water Supply.** Demonstrate environmental leadership through responsible and fiscally and environmentally sustainable management of water to restore our environment, enhance our quality of life and provide an adequate water supply to meet the needs of our community now and in the future.

Policies:

MS-17.1 Manage the limited water supply in an environmentally, fiscally, and economically sustainable manner, by working with local, regional and statewide agencies to establish policies that promote water use efficiency programs, including recycled water programs to support the expanded use of recycled water within San José and neighboring jurisdictions.

MS-17.2 Ensure that development within San José is planned and built in a manner consistent with fiscally and environmentally sustainable use of current and future water supplies by encouraging sustainable development practices, including low-impact development, water-efficient development and green building techniques. Support the location of new development within the vicinity of the recycled water system and promote expansion of the South Bay Water Recycling (SBWR) system to areas planned for new development. Residential developments outside of the Urban Service Area can be approved only at minimal levels and only allowed to use non-recycled water at urban intensities. For residential development outside of the Urban Service Area, restrict water usage to well water, rainwater collection, or other similar environmentally sustainable practice. Non-residential development may use the same sources and potentially make sure of recycled water, provided that its use will not result in conflicts with other General Plan policies, including geologic or habitat impacts. To maximize the efficient and environmentally beneficial use of water outside in the Urban Service Area, limit water consumption for new development in areas planned for urban uses within San José or other surrounding communities.

Goal MS-18 **Water Conservation.** Continuously improve water conservation efforts in order to achieve best in class performance. Double the City's annual water conservation savings by 2040 and achieve half of the Water District's goal for Santa Clara County on an annual basis.

Policies:

MS-18.1 Demonstrate environmental leadership by adopting citywide policies that encourage or require new and existing development to incorporate measures to reduce potable water demand and/or increase water efficiency in order to reduce the City's need for imported water.

MS-18.2 Require new development outside of the City's Urban Service Area to incorporate measures to minimize water consumption.

MS-18.3 Demonstrate environmental leadership by encouraging the creation and use of new technologies that reduce potable water demand and/or increase the efficiency of water use.

Actions:

MS-18.8 Encourage state legislation to improve water use efficiency through statewide mandates and appropriate regulations to encourage water efficient development (for example, plumbing code, graywater code, and the green building policy).

Goal MS-19 **Water Recycling.** Recycle or beneficially reuse 100% of the City's wastewater supply, including the indirect use of recycled water as part of the potable water supply.

Policies:

MS-19.1 Require new development to contribute to the cost-effective expansion of the recycled water system in proportion to the extent that it receives benefit from the development of a fiscally and environmentally sustainable local water supply.

MS-19.4 Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.

MS-18.12 Adopt city recycled water use codes and standards and work with local, regional, state and other public and private agencies to substantially increase use of recycled water within San José and neighboring jurisdictions.

Goal MS-21 **Community Forest.** Preserve and protect existing trees and increase planting of new trees within San José to create and maintain a thriving Community Forest that contributes to the City's quality of life, its sense of community, and its economic and environmental well being.

Policies:

MS-21.1 Manage the Community Forest to achieve San José's environmental goals for water and energy conservation, wildlife habitat preservation, stormwater retention, heat reduction in urban areas, energy conservation, and the removal of carbon dioxide from the atmosphere.

MS-21.4 Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.

MS-21.5 As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and construction practices. Special priority should be given to the preservation of native oaks and native sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy.

MS-21.6 As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.

MS-21.8 For Capital Improvement Plan or other public development projects, or through the entitlement process for private development projects, require landscaping including the selection and planting of new trees to achieve the following goals:

- Avoid conflicts with nearby power lines.
- Avoid potential conflicts between tree roots and developed areas.
- Avoid use of invasive, non-native trees.
- Remove existing invasive, non-native trees.
- Incorporate native trees into urban plantings in order to provide food and cover for native wildlife species.
- Plant native oak trees and native sycamores on sites which have adequately sized landscape areas and which historically supported these species.

Actions:

MS-21.13 Develop performance measures for tree planting and canopy coverage which measure the City's success in achieving the Community Forest goals. These performance measures should inform tree planting goals for the years between 2022 (the horizon year for the Green Vision) and 2040.

Quality of Life

Goal VN-1.6 **Vibrant, Attractive, and Complete Neighborhoods.** Develop new and preserve and enhance existing neighborhoods to be vibrant, attractive, and complete.

Policies:

VN-1.8 Include site planning, landscaping and architectural design features within all new retail development, including both small-format and large-format retail uses, to promote expanded pedestrian and bicycle activity on site and greater connectivity for pedestrians and bicyclists between adjacent uses.

VN-1.9 Cluster parking, make use of shared parking facilities, and minimize the visual impact of surface parking lots to the degree possible to promote pedestrian and bicycle activity and to improve the City's aesthetic environment.

Goal CD-1 **Attractive City.** Create a well-designed, unique, and vibrant public realm with appropriate uses and facilities to maximize pedestrian activity; support community interaction; and attract residents, business, and visitors to San José.

Policies:

CD-1.9 Give the greatest priority to developing high-quality pedestrian facilities in areas that will most promote transit use and bicycle and pedestrian activity. In pedestrian-oriented areas such as Downtown, Urban Villages, or along Main Streets, place commercial and mixed-use building frontages at or near the street-facing property line with entrances to the public sidewalk, provide high-quality pedestrian facilities that promote pedestrian activity, including adequate sidewalk dimensions for both circulation and outdoor activities related to adjacent land uses, a continuous tree canopy and outdoor pedestrian amenities. In these areas, strongly discourage parking areas located between the front of buildings and the street to promote a safe and attractive street façade and pedestrian access to buildings.

CD-1.10 Promote shared parking arrangements between private uses and the provision of commonly accessible commercial or public parking facilities which can serve multiple users in lieu of providing individual off-street parking on a property-by-property basis. Consider in-lieu parking fees or other policy actions to support this goal.

CD-1.24 Within new development projects, include preservation of ordinance-sized and other significant trees, particularly natives. Avoid any adverse affect on the health and longevity of such trees through design measures, construction, and best maintenance practices. When tree preservation is not feasible, include replacements or alternative mitigation measures in the project to maintain and enhance our Community Forest.

Goal CD-2.1 **Function.** Create integrated public and private areas and uses that work together to support businesses and to promote pedestrian activity and multi-modal transportation.

Policies:

CD-2.1 Promote the Circulation Goals and Policies in this Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of this Plan.

1. Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.
2. Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.
3. Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.

CD-2.3 Enhance pedestrian activity by incorporating appropriate design techniques and regulating uses in private developments, particularly in Downtown, Urban Villages, Main Streets, and other locations where appropriate.

1. Include attractive and interesting pedestrian-oriented streetscape features such as street furniture, pedestrian scale lighting, pedestrian oriented way-finding signage, clocks, fountains, landscaping, and street trees that provide shade, with improvements to sidewalks and other pedestrian ways.
2. Strongly discourage drive-through services and other commercial uses oriented to occupants of vehicles in pedestrian-oriented areas. Uses that serve the vehicle, such as car washes and service stations, may be considered appropriate in these areas when they do not disrupt pedestrian flow, are not concentrated in one area, do not break up the building mass of the streetscape, are consistent with other policies in this Plan, and are compatible with the planned uses of the area.
3. Provide pedestrian connections as outlined in the Community Design Connections Goal and Policies
4. Locate retail and other active uses at the street level.
5. Create easily identifiable and accessible building entrances located on street frontages or paseos.
6. Accommodate the physical needs of elderly populations and persons with disabilities,
7. Integrate existing or proposed transit stops into project designs.

CD-2.6 Consider converting underutilized right-of-way to linear parks, safe bike and pedestrian circulation areas, or other uses that support goals and policies of this Plan.

Goal CD-3 **Connections.** Maintain a network of publicity accessible streets and pathways that are safe and convenient for walking and bicycling and minimize automobile use; that encourage social interaction; and that increase pedestrian activity, multi-modal transit use, environmental sustainability, economic growth, and public health.

Policies:

CD-3.2 Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.

CD-3.3 Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets.

CD-3.4 Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.

CD-3.5 Encourage shared and alternative parking arrangements and allow parking reductions when warranted by parking demand.

Land Use and Transportation

Goal LU-1 **General Land Use.** Establish a land use pattern that fosters a more fiscally and environmentally sustainable, safe, and livable city.

Policies:

LU-1.2 Encourage Walking. Create safe, attractive, and accessible pedestrian connections between developments and adjacent public streets to minimize vehicular miles traveled.

LU-1.3 Create safe, attractive, and accessible pedestrian connections between developments and to adjacent public streets to minimize vehicular miles traveled.

LU-1.7 Locate employee-intensive commercial or industrial uses within walking distance or transit stops. Encourage public transit providers to provide or increase services to areas with high concentrations of residents, workers, or visitors.

Goal LU-7 **Attract Industrial Uses.** Attract new industrial uses to expand the City's economy and achievement of fiscal sustainability, stimulate employment, and further environmental goals.

<u>Policies:</u>

LU-7.2 Seek out industrial uses that are environmentally sustainable or create environmentally beneficial products in order to maintain a healthful environment and preserve natural resources.

LU-7.3 Encourage the use of industrially-planned land to provide locations for various forms of recycling services (e.g., collection, handling, transfer, processing, etc.), for the support facilities required by these services (e.g., service yards, truck storage and service) and for companies that manufacture new products out of recycled materials in order to support the City's Solid Waste Program.

Goal TR-1 **Balanced Transportation System.** Complete and maintain a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobile, buses, and trucks.

<u>Policies:</u>

TR-1.1 Accommodate and encourage use of non-automobile transportation modes to achieve San José's mobility goals and reduce vehicle trip generation and vehicle miles traveled (VMT).

TR-1.2 Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects.

TR-1.3 Increase substantially the proportion of travel using modes other than the single-occupant vehicle. The 2030 and 2040 mode split targets for all trips made by San José residents, workers, and visitors are presented in the following table.

	ALL TRIPS STARTING AND/OR ENDING IN SAN JOSÉ		
MODE	2019	2030 GOAL	2040 GOAL
Drive alone	80%	No more than 45%	No more than 25%
Shared Mobility/Carpool	12%	At least 25%	At least 25%
Transit	5%	At least 10%	At least 20%
Bicycle	Less than 2%	At least 10%	At least 15%
Walk	Less than 2%	At least 10%	At least 15%

Source: The 2008 mode split data were obtained from the American Community Survey (2008).

TR-1.4 Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes giving first consideration to improvement of bicycling, walking and transit facilities and services that encourage reduced vehicle travel demand.

- Development proposals shall be reviewed for their impacts on all transportation modes through the study of Vehicle Miles Traveled (VMT), Envision San José 2040 General Plan policies, and other measures enumerated in the City Council Transportation Analysis Policy and its Local Transportation Analysis. Projects shall fund or construct proportional fair share mitigations and improvements to address their impacts on the transportation systems.
- City Council may consider adoption of a statement of overriding considerations, as part of an EIR, for projects unable to mitigate their VMT impacts to a less than significant level. At the discretion of the City Council, based on CEQA Guidelines Section 15021, projects that include overriding benefits, in accordance with Public Resources Code Section 21081 and are consistent with the General Plan and the Transportation Analysis Policy 5-1 may be considered for approval. The City Council will only consider a statement of overriding considerations for (i) market-rate housing located within General Plan Urban Villages; (ii) commercial or industrial projects; and (iii) 100% deed-restricted affordable housing as defined in General Plan Policy IP-5.12. Such projects shall fund or construct multimodal improvements, which may include improvements to transit, bicycle, or pedestrian facilities, consistent with the City Council Transportation Analysis Policy 5-1.
- Area Development Policy. An "area development policy" may be adopted by the City Council to establish special transportation standards that identifies development impacts and mitigation measures for a specific geographic area. These policies may take other names or forms to accomplish the same purpose.

TR-1.5 Design, construct, operate, and maintain public streets to enable safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences.

TR-1.6 Require that public street improvements provide safe access for motorists and pedestrians along development frontages per current City design standards.

TR-1.8 Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emission standards are met.

TR-1.9 Give priority to the funding of multimodal projects that provide the most benefit to all users. Evaluate new transportation projects to make the most efficient use of transportation resources and capacity.

Goal TR-2 **Walking and Bicycling.** Improve walking and bicycling facilities to be more convenient, comfortable, and safe, so that they come primary transportation modes in San José.

Policies:

TR-2.1 Coordinate the planning and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Give priority to bicycle and pedestrian safety and access improvements at street crossings (including proposed grade-separated crossings of freeways and other high vehicle volume roadway) and near areas with higher pedestrian concentrations (school, transit, shopping, hospital, and mixed-use areas

TR-2.2 Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Include consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the Mineta San José International Airport.

TR-2.8 Require new developments where feasible to provide on-site facilities such as bicycle storage and showers, provided connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.

TR-2.9 Coordinate and collaborate with the Santa Clara Valley Transportation Authority, Peninsula Corridor Joint Powers Board, Amtrak, ACE, and local shuttle operators to permit bicyclists to transport bicycles and provide appropriate amenities on-board all commuter trains, buses, and shuttles. Coordinate with local transit operators to provide secure bicycle parking facilities at all park and-ride lots, train stations, and major bus stops.

TR-2.10 Coordinate and collaborate with local School Districts to provide enhanced, safer bicycle and pedestrian connections to school facilities throughout San José.

Actions:

TR-2.20 Continue to participate in and support the recommendations of the Safe Routes to School program. As part of the on-going Safe Routes to School program, work with School Districts to increase the proportion of students who walk or bike to school by improving the safety of routes to school, by educating students and parents about the health and environmental benefits of walking and bicycling, and by creating incentives to encourage students to walk and bike.

Goal TR-5 **Vehicular Circulation.** Maintain the City's street network to promote the safe and efficient movement of automobile and truck traffic while also providing for the safe and efficient movement of bicyclists, pedestrian, and transit vehicles.

Policies:

TR-5.3 Development projects' effects on the transportation network will be evaluated during the entitlement process and will be required to fund or construct improvements in proportion to their impacts on the transportation system. Improvements will prioritize multimodal improvements that reduce VMT over automobile network improvements.

Goal TR-7 **Transportation Demand Management.** Implement effective Transportation Demand Management (TDM) strategies that minimize vehicle trips and vehicle miles traveled.

Policies:

TR-7.1 Require large developments and employers to develop and maintain TDM programs with TDM services provided for their residents, full-time and subcontracted workers, and visitors to promote use of non-automobile modes and reduce the vehicle trips.

Actions:

TR-7.2 Support establishment of transportation management associations (TMA) made up of employers, developers, and property mangers in transit-oriented areas working together to manage transportation through incentives, programs, events, and advocacy that help reduce the number of drive-alone trips, minimize vehicle emissions, and improve access to transportation options.

Goal TR-8 **Parking Strategies.** Develop and implement parking strategies that reduce automobile travel through parking supply and pricing management.

Policies:

TR-8.1 Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services.

TR-8.2 Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use.

TR-8.4 Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use.

TR-8.5 Promote participation in car share programs to minimize the need for parking spaces in new and existing development.

TR-8.6 Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive TDM program, or developments located near major transit hubs or within Urban Villages and other Growth Areas.

TR-8.7 Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments.

TR-8.8 Promote use of unbundled private off-street parking associated with existing or new development, so that the sale or rental of a parking space is separated from the rental or sale price for a residential unit or for non-residential building square footage.

TR-8.9 Consider adjacent on-street and City-owned off-street parking spaces in assessing needs for additional parking required for a given land use or new development.

SETTING AND EXISTING AIR QUALITY CONDITIONS

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

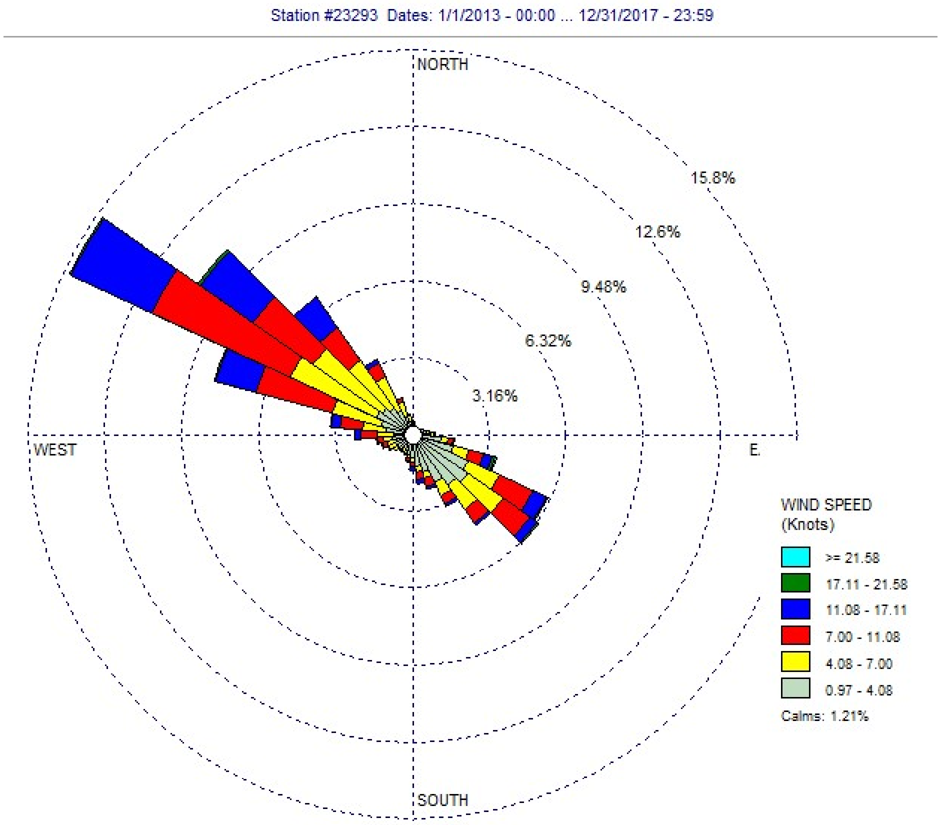
This Project is within the jurisdiction of the BAAQMD. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants, and the number of days during which the region exceeds air quality standards, have fallen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

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 warm daytime temperatures and cool nights in the Santa Clara Valley. 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 2 describes the patterns and frequency of winds at the project site. Wind data were collected from 2013 through 2017.

Figure 2. Windrose for San José Airport Years 2013-2017



Notes: Based on data provided by BAAQMD

NAAQS and CAAQS Status

Both the US EPA and CARB designate air basins as attainment, nonattainment, or unclassified based on ambient monitoring data. 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, or that monitoring data were not available. Table 6 shows the state and federal standards for criteria pollutants and provides a summary of the attainment status for the San Francisco Bay Area.

Table 6. San Francisco Bay Area NAAQS and CAAQS Status

Pollutant	Averaging Time	State		Federal	
		Standard	Status	Standard	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 attained the NAAQS/CAAQS 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 Criteria Pollutant Concentrations

BAAQMD monitors air pollution at various sites within the airshed. The closest air monitoring station is approximately 1.4 miles east of the project site in the City of San José (158 Jackson Street). It has monitored O_3, CO, NO, NO_2, PM_{10}, and $PM_{2.5}$ over the past 5 years (2017 through 2021). The data shows over the past few years, the general plan area has exceeded the state and/or federal O_3, PM_{10}, and $PM_{2.5}$ ambient air quality standards. Table 7 lists air quality trends in data collected for the past 5 years and published by the BAAQMD and CARB for the Jackson Street monitoring location, which is the most recent time-period available. Note these concentrations were influenced by smoke from wildfires.

Table 7. Ambient Air Quality Concentrations from 2017 through 2021

Pollutant	Standard	2017	2018	2019	2020	2021
Ozone						
Max 1-hr concentration		121 ppb	78 ppb	95 ppb	106 ppb	98 ppb
No. days exceeded: CAAQS	3	0	1	1	3	1
Max 8-hr concentration		99 ppb	61 ppb	82 ppb	86 ppb	85 ppb
No. days exceeded: CAAQS NAAQS	4 4	0 0	2 2	2 2	4 4	2 2
Carbon Monoxide						
Max 1-hr concentration		2.1 ppm	2.5 ppm	1.7 ppm	--	--
No. days exceeded: CAAQS NAAQS	0 0	0 0	0 0	-- --	-- --	-- --
Max 8-hr concentration		1.8 ppm	2.1 ppm	1.3 ppm	1.3 ppm	--
No. days exceeded: CAAQS NAAQS	0 0	0 0	0 0	0 0	-- --	0 0
PM_{10}						
Max 24-hr concentration		70 $\mu g/m^3$	122 $\mu g/m^3$	77 $\mu g/m^3$	137 $\mu g/m^3$	45 $\mu g/m^3$
No. days exceeded: CAAQS NAAQS	6 0	4 0	4 0	10 0	0 0	10 0
Max annual concentration		21 $\mu g/m^3$	23 $\mu g/m^3$	19 $\mu g/m^3$	25 $\mu g/m^3$	20
No. days exceeded: CAAQS	-	-	-	-	-	-
$PM_{2.5}$						
Max 24-hr concentration		50 $\mu g/m^3$	134 $\mu g/m^3$	34 $\mu g/m^3$	121 $\mu g/m^3$	38 $\mu g/m^3$
No. days exceeded: NAAQS	6	16	0	12	1	12
Annual Concentration		9.5 $\mu g/m^3$	12.7$\mu g/m^3$	9.0$\mu g/m^3$	11.5 $\mu g/m^3$	8.9 $\mu g/m^3$
No. days exceeded: CAAQS NAAQS	12 $\mu g/m^3$ 12 $\mu g/m^3$	- -	- -	- -	- -	- -
Nitrogen Dioxide						
Max 1-hr concentration		68 ppb	86 ppb	60 ppb	52 ppb	-
No. days exceeded: CAAQS NAAQS	0 0	0 0	0 0	0 0	- -	0 0
Annual Concentration		12 ppb	12 ppb	11 ppb	10 ppb	-
No. days exceeded: CAAQS NAAQS	0.030 ppm 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, 2021, Web: https://arb.ca.gov/adam/select8/sc8start.php

Ozone and $PM_{2.5}$, are the major regional air pollutants of concern in the San Francisco Bay Area. Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High ozone levels are caused by the cumulative emissions of ROG and NO_X. Controlling the emissions of these precursor pollutants is the focus of BAAQMD's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. Ozone frequently forms on hot summer days when the prevailing seasonal northerly winds carry ozone precursors southward across the county.

Ozone is a regional pollutant. Emissions of ROG and NOx throughout the Bay Area contribute to ozone formation. Because emissions in one part of the region can impact air quality miles downwind, efforts to reduce ozone levels focus on reducing emissions of ROG and NOx throughout the region. The relationship between ROG and NOx in ozone formation is complex;

the ratio between the precursor pollutants influences how ozone forms. BAAQMD's ozone modeling indicates that the Bay Area is "ROG-limited" for ozone formation. This means that reducing ROG emissions in the Bay Area will be more productive in reducing ozone, at least in the near term. However, modeling also suggests that large reductions in NOx emissions will be needed to achieve the ozone reductions required to attain the current health-based ozone standards. A certain amount of ozone formation occurs naturally, even in the absence of anthropogenic emissions of ROG and NOx.[8]

Existing Sources of TACs and Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following people who are most likely to be affected by air pollution: 1) children under 16, 2) the elderly over 65, 3) athletes, and 4) 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 existing land uses in the project area primarily consist of light and general industrial, automobile shops, and self-storage uses. In addition, a number of residences are located along the west side of Coleman Avenue between Hedding and Taylor Streets. Figure 3 shows the seven project sites and 1,000-foot buffer.

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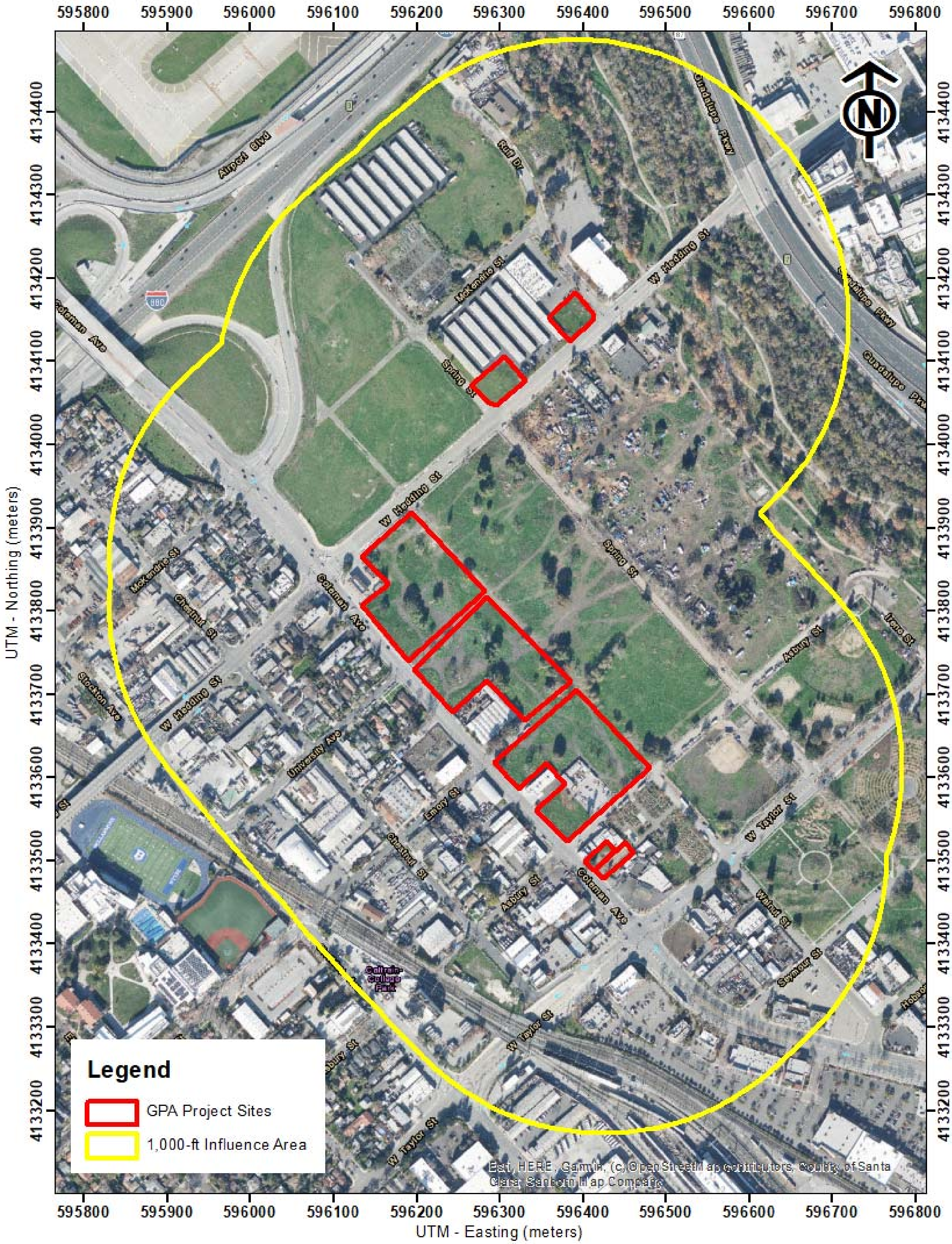
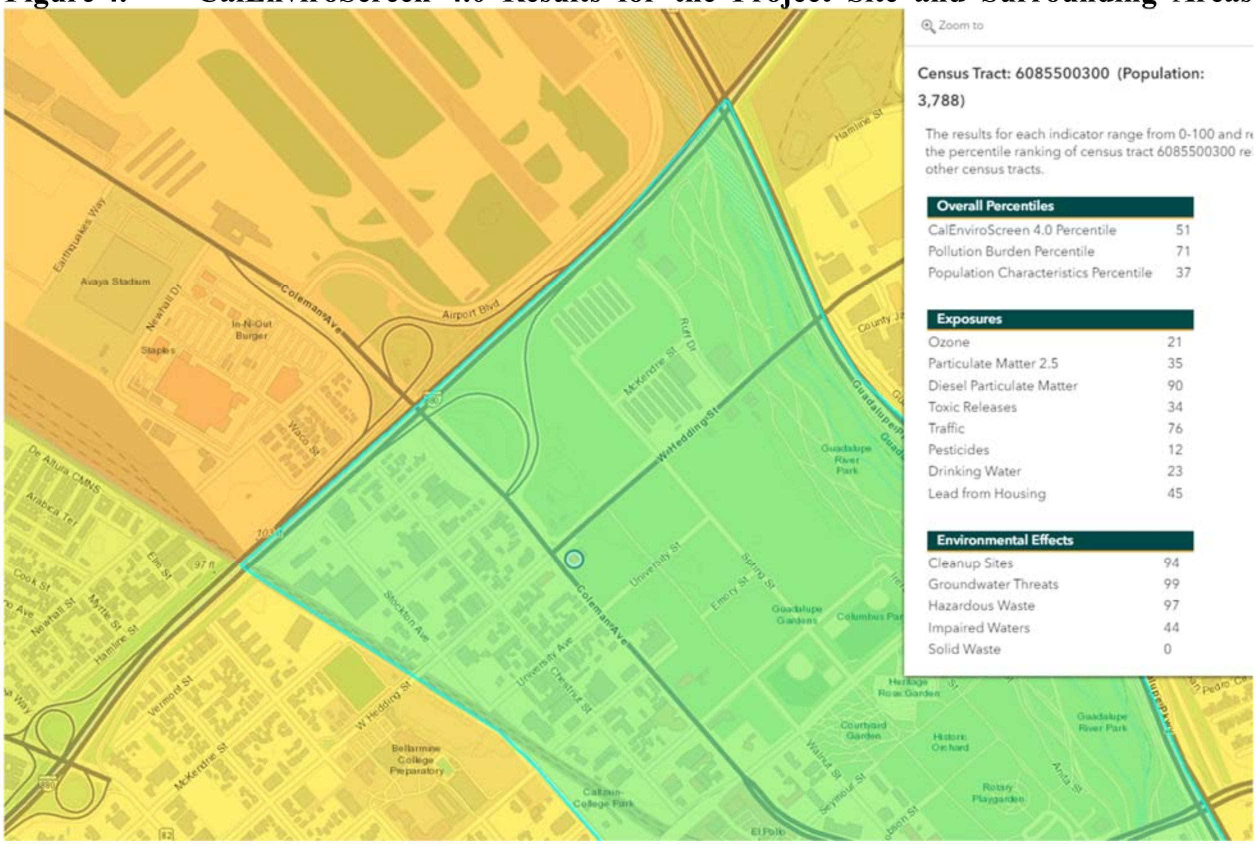
[8] Bay Area Air Quality Management District, 2017. *Spare the Air Cool the Climate Final 2017 Clean Air Plan*. April. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en

Figure 3. GPA Project Sites and 1,000-foot Area



BAAQMD does not identify the project area and surrounding community as an overburdened community. According to OEHHA's CalEnviroScreen tool, the census tracts containing the planning area has an overall score of 51.[9] Diesel particulate matter from traffic is largest contributor. The GPA plan area and surrounding residential receptors are in the green shaded census tract shown in Figure 4.

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



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[9] OEHAA, CalEnviroScreen 4.0 Indicator Maps https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

AIR QUALITY IMPACTS AND PROPOSED GENERAL PLAN UPDATE POLICIES

Air pollutant emissions and associated health risks were predicted using emissions and dispersion models. The methodology for computing health risks impacts is contained in Appendix E of the BAAQMD CEQA Guidelines.[10] For operational land use emissions, the latest version of the California Emissions Estimator Model (CalEEMod) Version 2022 was used to compute annual emissions. The model output from CalEEMod along with inputs are included as *Attachment 1*.

Impact AIR-1: Conflict with or obstruct implementation of an applicable air quality plan?

BAAQMD, with assistance from Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), has prepared and implements specific plans to meet the applicable laws, regulations, and programs, the most recent and comprehensive of which is the *Bay Area 2017 Clean Air Plan*.[11] The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which in turn affects region-wide emissions of air pollutants and GHGs.

Consistency of the project with Clean Air Plan control measures is demonstrated by assessing whether the proposed GPA and rezoning implement the applicable Clean Air Plan control measures. The 2017 Clean Air Plan includes control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. The control measures are divided into five categories that include:

- 40 measures to reduce stationary and area sources;
- 8 mobile source measures;
- 23 transportation control measures (including land use strategies);
- 4 building sector measures;
- 2 energy sector measures;
- 4 agriculture sector measures;
- 3 natural and working lands measures;
- 4 waste sector measures;
- 2 water sector measures; and
- 3 super-GHG pollutants measures.

In developing the control measures, BAAQMD identified the full range of tools and resources available, both regulatory and non-regulatory, to develop each one. This approach relies upon lead agencies to assist in implementing some of the control measures. A key tool for local agency implementation is the development of land use policies and implementing measures that address new development or redevelopment in local communities. To address this impact, the project's

[10] BAAQMD, 2022. Appendix E of the *BAAQMD CEQA Guidelines*. April 2023.
[11] Bay Area Air Quality Management District (BAAQMD), 2017. *Final 2017 Clean Air Plan.*

effect on implementing the Clean Air Plan is evaluated based on consistency with Clean Air Planning projections (i.e., rate of increase in population versus vehicle travel).

Consistency with Clean Air Plan Projections

The BAAQMD, with assistance from ABAG and MTC, has prepared and implemented the Clean Air Plan to meet the applicable laws, regulations, and programs. The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions and protect the climate. The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which in turn affects region-wide emissions of air pollutants and GHG.

The BAAQMD CEQA Guidelines recommend comparing the increase in the rate of population compared to the rate of traffic increase that is based on vehicle miles travelled (VMT) or trips. In this case, the project sites currently do not and will not include residents; therefore, that evaluation cannot be made. Instead, the changes in VMT per service population (i.e., jobs) are evaluated. This effect is analyzed in the transportation analysis[12] per City guidance that uses the methodology outlined in the City's Transportation Analysis Handbook. That analysis utilized the City of San José Travel Demand Forecasting (TDF) Model to estimate VMT for the proposed project. The TDF model was used since it can estimate the diversion of traffic and change in traffic patterns due to land use changes/additions like those proposed by the project.

Table 8 provides the project's population and traffic conditions for existing and future build out conditions. Compared to existing conditions, the proposed project would increase traffic by up to 9,575 daily trips. The projected change in daily vehicle miles traveled (VMT) for the plan area is 3,208 miles. Land use and zoning changes resulting from the project would result in an increase of 647 new jobs. The City's Transportation Policy sets an impact threshold to be 12.21 VMT per employee for office land uses. The results of the VMT analysis indicate that the office equivalent of the proposed project is projected to generate VMT per employee of 12.89. The increased VMT with respect to service population growth under the GPA would result in a significant impact when compared to the existing conditions because the rate of VMT per service population would increase with the project in place.

Mitigation: Traffic

Several physical improvements (e.g., multi-modal bike lanes, traffic calming improvements, and Transportation Demand Management (TDM) measures) were identified that the project will be required to implement for the purpose of reducing VMT. These would be implemented as transportation mitigation measures (listed below):

1. Provide Class IV protected bike lanes using raised vertical delineators on Hedding Street eastbound between Coleman Avenue and Ruff Drive as well as on Hedding Street westbound between Walnut Street and Ruff Drive.

[12] Hexagon Transportation Consultants, Inc., *Guadalupe Gardens Transportation Analysis*, July 28, 2023

2. Removal of an eastbound travel lane on Hedding Street between Walnut Street and Ruff Drive to provide a more bicycle-friendly roadway.

3. Implement TDM plans that include marketing/educational campaigns that promote the use of transit, shared rides, and travel through active modes. Strategies may include the incorporation of alternative commute options into new employee orientations, event promotions, and publications. The TDM Plan(s) shall include a trip cap for VMT monitoring purposes. The trip cap shall be determined by a traffic engineer using the methodology employed in the project's EIR, such that the number of trips will not translate into an increase in VMT over No Project conditions.

By implementing the above-described traffic mitigation measures, the projected VMT generated by the project would be reduced to 12.10 miles per capita. This would reduce the per capita rate to below the City's threshold of 12.21 VMT per employee.

Table 8. GPA Traffic and Service Population Projections

Scenario	Population	Jobs	Daily Trips	Daily VMT	VMT per Capita
Existing Development	0	0	0	444,815	0
Allowed Development under the Adopted General Plan (No Project)	0	0	0	444,815	0
Change compared to existing	--	--	--	--	--
Allowed Development under the Proposed Project – No TDM	0	647	9,575	448,023	12.89
Change compared to existing	--	*+647*	*+9,575*	+3,208	*Exceeds Threshold*
Allowed Development under the Proposed Project – With TDM	0	647	tbd[a]	444,815	12.10
Change compared to existing	--	*+647*	*tbd[a]*	--	*Below Threshold*
[a] Number of trips to be determined such that the project will not result in an increase in VMT when compared to No Project conditions.					

Source: Project Description and Hexagon Transportation Consultants, 2023.

Consistency with Clean Air Plan Control Measures

The BAAQMD CEQA Air Quality Guidelines establish criteria for determining consistency with the Clean Air Plan control measures. In general, a plan is considered consistent if a) the plan supports the primary goals of the Clean Air Plan; b) includes control measures; and c) does not interfere with implementation of the Clean Air Plan measures. Growth under the project is considered sustainable since it consists of infill development that would be transit-oriented and located near a mix of uses that include employment and services. The City of San José relies on strategies in its adopted 2030 Greenhouse Gas Reduction Strategy Plan to guide new development to meet GHG reduction goals. These goals are also in line with Clean Air Plan control measures. The development in the area under the proposed project is consistent with the City's General Plan and would generally be consistent with Clean Air Plan measures intended to reduce automobile and energy use. Table 9 lists those Clean Air Plan measures relevant to the project and indicates consistency between the City's General Plan and the Clean Air Plan.

Table 9. BAAQMD Control Strategy Measures from the Clean Air Plan

Applicable BAAQMD Control Strategy Measures	San Jose General Plan Consistency
Transportation Control Measures	
TR2: Trip Reduction Programs	Consistent Supported by General Plan General Land Use policies LU-1 1.2 and 1.3, Balanced Transportation System policies TR-1 1.1, 1.2, 1.3, and 1.4 and Vehicular Circulation policy TR-5 5.3, as well as Transportation Demand Management policy TR-7 7.1.
TR 5: Transit Efficiency and Use	Consistent While this is mostly a regionally implemented control measure, it is also supported by Genera Plan Air Pollutant Emission Reduction policies MS-10.3, 10.5, and 10.6, as well as Reduce Consumption and Increase Efficiency policies MS-14 14.1, Attractive City CD-1 1.9, General Land Use policies LU-1 1.7, Balanced Transportation System policies TR-1.8 and 1.9. Also supported by 2030 GHGRS strategy #6.
TR7: Safe Routes to Schools and Safe Routes to Transit	Consistent Supported by General Plan Walking and Biking policies TR-2.10 and 2.20 as well as Connections policy CD-3.2.
TR8: Ridesharing, Last-Mile Connection	Consistent Supported by General Plan Air Pollutant Emission Reduction policy MS-10.5 as well as General Land Use policies LU-1 1.7, Balanced Transportation system policy TR-1 1.3 and Transportation Demand Management policy TR-7 7.2.
TR9: Bicycle and Pedestrian Access and Facilities	Consistent Supported by General Plan Vibrant, Attractive, and Complete Neighborhoods policy VN-1 1.8, Attractive City policies CD-1 1.7, 1.8, 1.9, Function policies CD-2.1, 2.3, 2.6, Connections policies CD-3 3.3, 3.4, Balanced Transportation System policies TR-1.4, 1.5,1.6, General Land Use policies LU-1 1.2 and 1.3, and Walking and Biking policies TR-2.1, 2.2, 2.8, 2.9.
TR10: Land Use Strategies	Consistent Air Pollutant Emission Reduction policies MS-10.6 and Attract New Industrial Uses Policy LU-7.,2 and 7.3. Also supported by 2030 GHGRS strategy #6.

Applicable BAAQMD Control Strategy Measures	San Jose General Plan Consistency
TR13: Parking Policies	Consistent Supported by General Plan Vibrant, Attractive, and Complete Neighborhoods policy VN-1.9, Attractive City policies CD-1 1.9 and 1.10, Connections policy CD-3.5, as well as Parking Strategies TR-8.1, 8.2, 8.4, 8.5, 8.6, 8.7, 8.8, and 8.9.
Building Control Measures	
BL1: Green Buildings	Consistent Supported by General Plan Green Building Policy Leadership policies MS-1.1, 1.2, 1.3, 1.4, 1.5, 1.6, and 1.7, Energy Conservation and Renewable Energy Use policies MS-2 2.1, 2.2, 2.3, 2.4, 2.7, 2.11, and 2.12, as well as Air Pollutant Emissions Reduction MS-7 10.7 and Reduce Consumption and Increase Efficiency policy MS-14 14.4.
BL2: Decarbonize Buildings	Consistent Supported by General Plan Energy Conservation and Renewable Energy Use policies MS-2 2.2, 2.3, 2.6, 2.7, 2.8, 2.9, 2.11, and 2.12 as well as Reduce Consumption and Increase Efficiency policy MS-14 14.4. Also supported by 2030 GHGRS strategy #1.
BL4: Urban Heat Island Mitigation	Consistent Supported by Energy Conservation and Renewable Energy Use goal MS-2 2.6.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	Consistent Supported by General Plan Community Forest policies MS-21 21.4, 21.5, 21.6, and 21.8 as well as Reduce Consumption and Increase Efficiency policy MS-14 14.4, Community Forest policies MS-21 21.1 and 21.13, as well as Attractive City policy CD-1 1.9.
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	Consistent Supported by Waste Diversion goals MS-5 5.4, 5.5, 5.6, and 5.7 and Waste Reduction policies MS-6 6.1, 6.3, 6.5, 6.7, 6.8, 6.11, and 6.12 as well as MS-7 7.1, 7.2, 7.7, 7.9, 7.10, 7.11, 7.13, 7.14. Also supported by 2030 GRGHS strategy #5.
Water Control Measures	

Applicable BAAQMD Control Strategy Measures	San Jose General Plan Consistency
WR2: Support Water Conservation	Consistent Supported by General Plan Water Conservation and Quality policies MS-3 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, and 3.9 as well as Responsible Management of Water Supply MS-17 17.1 and 17.2, Water Conservation policies MS-18 18.1, 18.2,18.3, and 18.8, and Water Recycling policies MS-19, 19.1, 19.4, and 19.12. Also supported by 2030 GHGRS strategy #7.

Conclusion Regarding Impact AIR-1: With the implementation of the traffic mitigation described above, the project would not conflict with or obstruct implementation of an applicable air quality plan.

Impact AIR-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

The Bay Area is considered a nonattainment area for ozone and $PM_{2.5}$ under both the NAAQS and the CAAQS and nonattainment for PM_{10} under the CAAQS only. The area has attained the NAAQS and CAAQS for CO. As part of an effort to attain and maintain the NAAQS/CAAQS for ozone and PM_{10}, the BAAQMD has established CEQA thresholds of significance for these air pollutants and their precursors (ROG, NO_X, PM_{10}, and $PM_{2.5}$). These thresholds apply to both construction period and operational period impacts. The quantified thresholds identified by BAAQMD apply only to projects.

Construction Emissions

Build-out of the land uses identified in the proposed project would result in temporary emissions from construction activities associated with subsequent development, including site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips.

Fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions during construction, is generated through the ground disturbances by equipment and vehicles. Sources of fugitive dust 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. Uncontrolled dust from construction activities can become a nuisance and potential health hazard to those living and working nearby.

Exhaust emissions include those from construction equipment (i.e., off-road) and traffic (on-road vehicles and trucks). Off-road construction equipment is often diesel-powered and can be a substantial source of NO_X emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Architectural coatings and application of asphalt pavement are dominant sources of ROG emissions. The potential health risk impacts from construction are addressed under Impact 3.

BAAQMD's significance thresholds. Such thresholds, which are listed in Table 5, are as follows:

- Emissions of ROG, NOx, or $PM_{2.5}$ (exhaust) exceeding 54 pounds per day.
- Emissions of PM_{10} (exhaust) exceeding 82 pounds per day

Exhaust emissions include those from construction equipment (i.e., off-road) and traffic (on-road vehicles and trucks). Off-road construction equipment is often diesel-powered and can be a substantial source of NO_X emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Architectural coatings and application of asphalt pavement are dominant sources of ROG emissions. The potential health risk impacts from construction are addressed under Impact 3.

Pollutant emissions thresholds for construction activities contained in BAAQMD's CEQA Air Quality Guidelines only apply to projects and not plans. Buildout of the GPA would consist of numerous construction projects that would occur at various times over many years. The details of these individual construction projects are not available to make valid estimates of construction emissions impacts for the GPA. Emissions associated with all the projects that would be constructed under the GPA were predicted for a reasonable maximum build-out scenario where Sites 1, 2, and 5 are constructed simultaneously. The modeling was conducted using CalEEMod default conditions along with project types and sizes. Emissions reported in Table 10 are below the BAAQMD thresholds.

Table 10. Worst-Case Construction Period Emissions – Unmitigated*

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (Tons)				
2026	0.51	4.69	0.17	0.16
2027	1.34	0.27	0.01	0.01
Total Construction Emissions	1.85	4.96	0.18	0.17
Average Daily Construction Emissions (pounds/day)				
2026 – 2027 (304 construction workdays)	12.15	32.63	1.21	1.12
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

*Assumes Sites 1, 2, and 5 are constructed simultaneously.

Supplementing the conclusion of the previous paragraph, BAAQMD's CEQA Air Quality Guidelines consider construction impacts to be less-than-significant if best management practices (BMPs) are implemented to reduce fugitive dust emissions and construction related exhaust emissions. Implementation of BAAQMD's BMPs are required by the City's General Plan and included as a Standard Permit Conditions in the General Plan EIR.

<u>BAAQMD's Basic Construction BMPs/ Standard Permit Conditions</u>

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.

Operational Buildout Emissions

Air emissions from the implementation of the proposed project would be generated primarily from autos driven by future employees, customers, and vendors, as well as evaporative emissions from architectural coatings and maintenance products (classified as consumer products). CalEEMod Version 2022 was used to estimate emissions from operation of the proposed project assuming full buildout.

<u>CalEEMod Land Uses</u>

A CalEEMod modeling scenario was developed for the proposed GPA for the buildout year 2035. Inputs are summarized in Table 11.

Table 11. Operational Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet (sf)	Acreage
Strip Mall*	259	1,000-sf	258,720	10.3

* Strip Mall land use chosen as similar to land use used in traffic analysis of Shopping Center.

Traffic

CalEEMod allows the user to enter specific vehicle trip generation rates. Daily trip generation rates provided by the traffic consultant were entered into the model.[13] The GPA would produce approximately 9,575 daily trips. The traffic report provided trip rates for total trips per day for buildout of the GPA. These were assumed to be weekday trips. The Saturday and Sunday trip rates were adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate with the project-specific daily weekday trip rate. Average trip lengths were input based on the VMT forecasted in the traffic study. The default trip types specified by CalEEMod were used.

TDM Measures

The project will be required to implement a TDM Plan in order to mitigate a VMT impact. The VMT/TDM reduction was not included in the traffic analysis's trip generation and is not included in the unmitigated emissions analysis.

Energy

CalEEMod defaults for energy use were used, which include the 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. An emission factor of 178 pounds of CO_2 per megawatt of electricity produced was entered into CalEEMod, which is based on San José Clean Energy's (SJCE) 2020 emissions rate.[14] It should be noted that per Climate Smart San José and San José's Greenhouse Gas Reduction Strategy, SJCE's goal is to provide 100-percent carbon-free electricity prior to 2030.[15]

CalEEMod includes the 2019 Title 24 Building Standards. However, the City of San José passed an ordinance in December 2020 that prohibits the use of natural gas infrastructure in new residential, office, and most retail-type buildings.[16] This ordinance applies to any new construction starting August 1, 2021. Natural gas use for the land uses was set to zero and reassigned to electricity use in CalEEMod.

Water Usage and Wastewater

The CalEEMod default water usage rates for the various land uses were used and are based on 2008 statewide averages. Water/wastewater use was changed to 100 percent aerobic conditions to represent the City's wastewater treatment plant conditions. The GPA area would not send wastewater to septic tanks or facultative lagoons.

[13] Hexagon Transportation Consultants, Inc., *Guadalupe Gardens Transportation Analysis*, July 28, 2023.
[14] San José Clean Energy Website, Standard GreenSource service. Web: https://sanjosecleanenergy.org/commercial-rates/
[15] City of San José, 2020. "2030 Greenhouse Gas Reduction Strategy", August. Web: https://www.sanjoseca.gov/home/showpublisheddocument/63667/637347412207870000
[16] City of San José, 2020. "Expand Natural Gas Ban", December. Web: https://www.sanjoseca.gov/Home/Components/News/News/2210/4699

Summary of Computed Operational Emissions

Annual emissions for the proposed GPA buildout were computed using CalEEMod. Average daily emissions were calculated assuming 365 days of emissions per year. As shown in Table 12, buildout emissions would not exceed the BAAQMD Project-Level significance thresholds.

Table 12. Unmitigated Annual Buildout Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Emissions Per Year (Tons)				
Unmitigated 2035 Proposed GPA Annual Operational Emissions (*tons/year*)	4.20	0.97	0.39	0.10
BAAQMD Project-Level Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Project-Level Threshold? Unmitigated	*No*	*No*	*No*	*No*
Emissions Per Year (lbs. per average day)				
Unmitigated 2035 Proposed GPA Annual Operational Emissions ((*lbs./day*)	23.03	5.33	2.11	0.56
BAAQMD Project-Level Thresholds (lbs./day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Project-Level Threshold? Unmitigated	*No*	*No*	*No*	*No*
Notes: [1] Assumes 365-day operation.				

Conclusion Regarding Impact AIR-2: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Impact AIR-3: Expose sensitive receptors to substantial pollutant concentrations?

To address exposure of sensitive receptors to substantial pollutant levels, the BAAQMD CEQA Guidelines developed thresholds that address health risks. These include increased cancer risk, non-cancer hazards, and increased annual concentrations of $PM_{2.5}$. Diesel particulate matter (DPM) is the predominant TAC in the area. The thresholds apply to impacts from individual projects. The San José General Plan includes policies requiring project-level construction health risk assessments. This would apply to projects in the GPA.

Individual projects within the GPA area would introduce new sources of TACs with the potential to adversely affect existing sensitive receptors in the vicinity of the GPA area or by significantly exacerbating existing cumulative TAC impacts. Construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. Operation of the new GPA developments would increase traffic in the local area that would increase the air pollutant and TAC emissions. In addition, the new buildings may include stationary sources, such as the installation of emergency generators powered by diesel engines. Furthermore, these types of stationary air pollutant sources would be required to obtain permits from BAAQMD and undergo project-level health risk analyses.

Health Risk Methodology from GPA Project Construction and Operation

Health risk impacts are judged by the contribution from each project, for which the GPA could include 7 separate projects. This health risk assessment conservatively evaluated the impacts from construction and operation of sites 1, 2, and 5. This assessment predicted increased cancer risk, the increase in annual $PM_{2.5}$ concentrations, and the increased Hazard Index (HI) for non-cancer health risks. The health risk impacts were analyzed from these specific sites due to their large size and close proximity to sensitive receptors with respect to the other GPA sites. The potential impacts from the other GPA project sites are minimal given their small size and large distances between site and sensitive receptors. The health risk impacts at each site are the combination of risks from construction and operation sources. These sources include on-site construction activity, construction truck hauling, increased traffic, and emergency generator operation. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance,[17] 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 maximally exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation.

The methodology for computing health risks impacts is contained in Appendix E of the BAAQMD CEQA Guidelines. TAC and $PM_{2.5}$ emissions are calculated, a dispersion model used to estimate ambient TAC/pollutant concentrations, and cancer risks and HI calculated using TAC concentrations.

<u>Modeled Sensitive Receptors</u>

Receptors for this assessment included locations where sensitive populations closest to the project sites would be present for extended periods of time (i.e., chronic exposures). This includes the existing residences to the southwest of each site, as shown in Figure 5. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions.

Health Risk from Project Construction

The primary health risk impact issues associated with construction projects are cancer risks associated with diesel exhaust (i.e., DPM), which is a known TAC, and exposure to high ambient concentrations of dust (i.e., $PM_{2.5}$) DPM 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 $PM_{2.5}$.[18] This assessment included dispersion modeling to predict the offsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer

[17] BAAQMD, Appendix E of the 2022 *BAAQMD CEQA Guidelines*, April 2023.
[18] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

health effects could be estimated. Since specific land uses for each of the three project sites (Site 1, Site 2, and Site 5) are not known at this time, Table 13 shows the CalEEMod land uses that were chosen as a conservative assumption for each site.

Table 13. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet (sf) per Site	Acreage Site 1	Acreage Site 2	Acreage Site 5
Each Site: General Office Building	83.4	1,000-sf	83,400	2.90	3.19	3.19
Each Site: Parking Lot	16.166	1,000-sf	16,166			

The land use shown in Table 13 is based on Site 5 from Table 2 in this report. Site 5 was chosen since it is the largest site and has the largest proposed maximum building size of the three sites. This land use was then duplicated for other two sites, Site 1 and Site 2. While taking this approach is likely to overestimate construction emissions, it was done with the intent of providing a conservative estimate of construction emissions from all three sites.

Construction Emissions

The CalEEMod model provided total uncontrolled annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles. Inputs to the model were based on CalEEMod default assumptions that are based on acreage and square footage. Total DPM emissions from each project were estimated to be 0.18 tons (361 pounds) and fugitive dust emissions ($PM_{2.5}$) to be 0.06 tons (98 pounds) from all construction stages. 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 the emissions from on-road vehicles traveling at or near the site would occur at the construction site.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at sensitive receptors (i.e., residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[19] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions.

Construction Sources

To represent the construction equipment exhaust emissions, an area source was used with an emission release height of 20 feet (6 meters).[20] The release height incorporates both the physical release height from the construction equipment (i.e., the height of the exhaust pipe) and plume rise

[19] BAAQMD, Appendix E of the 2022 *BAAQMD CEQA Guidelines*, April 2023.

[20] 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

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, was 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, an area source with a near-ground level release height of 7 feet (2 meters) was used. 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.

<u>AERMOD Inputs and Meteorological Data</u>

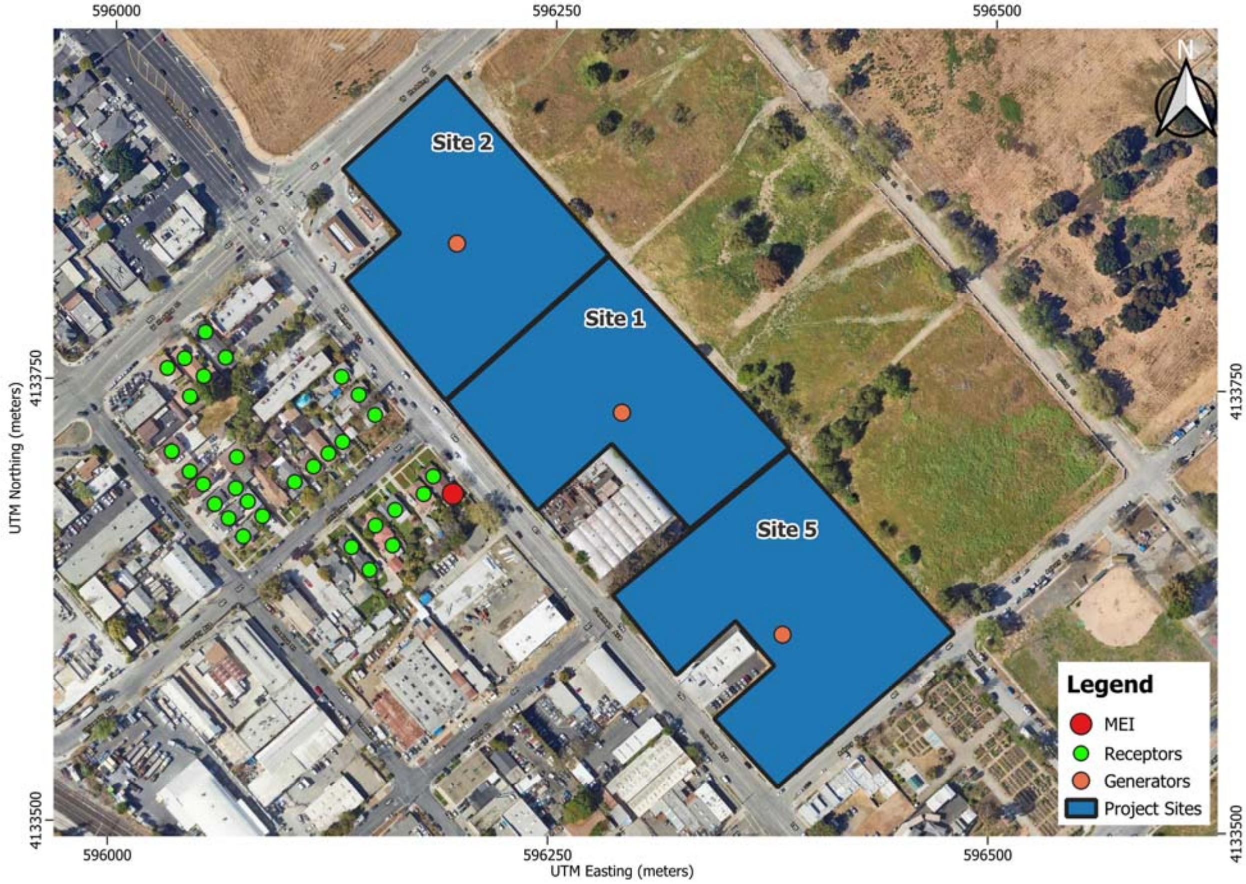
The modeling used a five-year data set (2013 - 2017) of hourly meteorological data from the San José International Airport prepared for use with the AERMOD model by BAAQMD. Construction emissions were modeled as occurring daily between 8:00 a.m. to 5:00 p.m., when the majority of construction emissions are expected to occur. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2026-2027 period were calculated at nearby sensitive receptors using the model. Receptor heights of 5 feet (1.5 meters) were used to represent the breathing heights on the first floor of nearby single-family residences.[21]

Health Risks from Project Operation

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

[21] 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

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



Project Traffic

Diesel powered vehicles are the primary concern with local traffic-generated TAC impacts. This project would generate 9,575 daily trips[22] with most of the trips being from light-duty gasoline-powered vehicles (i.e., passenger cars). These trips were modeled to occur on Coleman Avenue, West Hedding Street, and West Taylor Street. Since traffic distribution on these roadways was not provided, it was assumed that all trips would originate on Coleman Avenue with West Hedding Street and West Taylor Street each receiving 50% of the total trips (25% in each direction on those roadways).

Emissions Rates

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on Coleman Avenue, West Hedding Street, and West Taylor Street 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.

[22] Hexagon Transportation Consultants, Inc. Guadalupe Gardens Transportation Analysis, file: *Guadalupe Gardens TA – 07-28-23.pdf.*

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 (Santa Clara County), type of road (major/collector), traffic mix assigned by CT-EMFAC2021 for the county, truck percentage for non-state highways in Santa Clara County (3.51 percent),[23] year of analysis (2028 operational start year), and season (annual).

To estimate TAC and $PM_{2.5}$ emissions over the 30-year exposure period used for calculating the increased cancer risks for sensitive receptors at the MEIs, the CT-EMFAC2021 model was used to develop vehicle emission factors for the year 2028 (operational start year). Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CT-EMFAC2021. Year 2028 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

An ADT of 9,575 vehicles was applied to Coleman Avenue, based on the daily trip generation of the project provided by the traffic consultant[24]. Since the traffic distribution was not known, this assessment assumed all traffic would travel along Coleman Avenue. The ADT on West Hedding Street and West Taylor Street is assumed to be 50% of the volume on Coleman Avenue, or 4,788 vehicles. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[25] which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for the roadway. For all hours of the day an average speed of 35 mph was assumed for all vehicles on all three roadways based on posted speed limit signs.

Hourly emissions rates were developed for DPM, organic TACs, and $PM_{2.5}$ along the applicable segments of both roadways within 1,000 feet of the project site. AERMOD was used to estimate the TAC and $PM_{2.5}$ concentrations at the MEI locations. Maximum increased lifetime cancer risks and maximum annual $PM_{2.5}$ concentrations for the construction MEIs receptor were then computed using modeled TAC and $PM_{2.5}$ concentrations and BAAQMD methods and exposure parameters.

Project Stand-By Diesel Generators

It was assumed that the project would include one emergency generator at each project site for a total of three generators. Each generator was estimated to be 500 kilowatts (kW) powered by 670 horsepower (hp) diesel-fired engine. Since a specific location for each generator is not known at

[23] Bay Area Air Quality Management District, 2023, Appendix E of the *BAAQMD CEQA Guidance.* April.
[24] Hexagon Transportation Consultants, Inc. Guadalupe Gardens Transportation Analysis, file: *Guadalupe Gardens TA – 07-28-23.pdf.*
[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 EMFAC2021 does not include Burden type output with hour-by-hour traffic volume information.

this time, the generators were placed near the centroid of each project site. The location of the modeled generators is shown in Figure 6.

Operation of the diesel generators would be a source of TAC emissions. The generators would be tested periodically and power the system in the event of a power failure. For modeling purposes, it was assumed that the generators would be operated for testing and maintenance purposes. CARB and BAAQMD requirements limit these engine operations to 50 hours each per year for testing and maintenance. During testing periods, the engines would typically be run for less than one hour. The engines would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. Additionally, the generators would have to meet BAAQMD BACT requirements for IC Engine-Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump sources. These include emission limits similar to U.S. EPA Tier 4 standards for the engines larger than 1,000-hp. The emissions from the operation of the generator were calculated using CalEEMod.

The diesel engines would be subject to CARB's Stationary Diesel Airborne Toxics Control Measure (ATCM) and require permits from the BAAQMD, since it will be equipped with an engine larger than 50-HP. BACT requirements would apply to the generator 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.

Operational Truck Traffic Emissions

Since specific tenant(s) are not known yet for these project sites, the potential exists for tenants that could generate truck trips during the operational phase of the project. As a result, it is assumed that each of the three project sites would generate 40 truck trips, or 120 total truck trips. These trucks are assumed to be heavy heavy-duty trucks (HHDT) and are a source of long-term DPM emissions. These trucks would travel to and from the site and could idle at loading docks for 5 minutes for each trip.

Emissions from these deliveries were calculated using EMFAC2021. An on-site travel distance of one mile was assumed. All truck trips were assumed to be HHDT trips. Exhaust emissions and fugitive $PM_{2.5}$ emissions from on-site travel were input into AERMOD as area sources in the same manner as described above for the construction emissions.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the EPA AERMOD air quality dispersion model, which is recommended by the BAAQMD for this type of analysis.[26] TAC and $PM_{2.5}$ emissions from traffic on Coleman Avenue, West Hedding Street, and West Taylor

[26] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012

Street within 1,000 feet of the project site were evaluated. Vehicle traffic on the roadways was modeled using a series of area sources along a line (line area sources); with line segments used for travel on the roadways in opposing directions. The same meteorological data and off-site sensitive receptors used in the previous construction site dispersion modeling scenario were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations. Annual TAC and $PM_{2.5}$ concentrations using 2028 emissions from traffic on each roadway were calculated using the model. Concentrations were calculated at the construction MEI with receptor heights of 5 feet (1.5 meters) to represent the breathing heights on the first floor of residents in the single-family residence.

To estimate potential increased cancer risks and $PM_{2.5}$ impacts from operation of the emergency generators at the project MEI, the same AERMOD dispersion model was used to compute the maximum annual DPM concentration at off-site sensitive receptor locations (i.e., nearby residences). Emissions of DPM were based on PM_{10} exhaust emissions predicted by CalEEMod for operation of the project generators. The same receptors, breathing heights, and meteorological data used in the construction dispersion modeling were used for the generator model. Stack parameters (i.e., exhaust gas flowrate, stack diameter, stack height, and exhaust gas temperature) for modeling the generator were based on BAAQMD default parameters 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).

Summary of Project-Related Health Risks at the Off-Site Project MEIs

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with BAAQMD CEQA guidance for age sensitivity factors and exposure parameters. 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.

Non-cancer health hazards and maximum $PM_{2.5}$ concentrations were also calculated. 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 DPM reference exposure level of 5 $\mu g/m^3$.

The modeled maximum annual DPM and $PM_{2.5}$ concentrations were identified at nearby sensitive receptors to find the MEI. Results of this assessment indicated that emissions from construction and operation of the project resulted in an MEI located at a single-family residence southwest of Site 1. The location of the MEI and nearby sensitive receptors are shown in Figure 5. Table 14 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and HI for project related construction and operational activities. *Attachment 2* to this report includes the emission calculations used for the construction and operational modeling and the cancer risk calculations.

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[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

Table 14. Maximum Construction and Operation Risk Impacts at the Off-Site Receptors

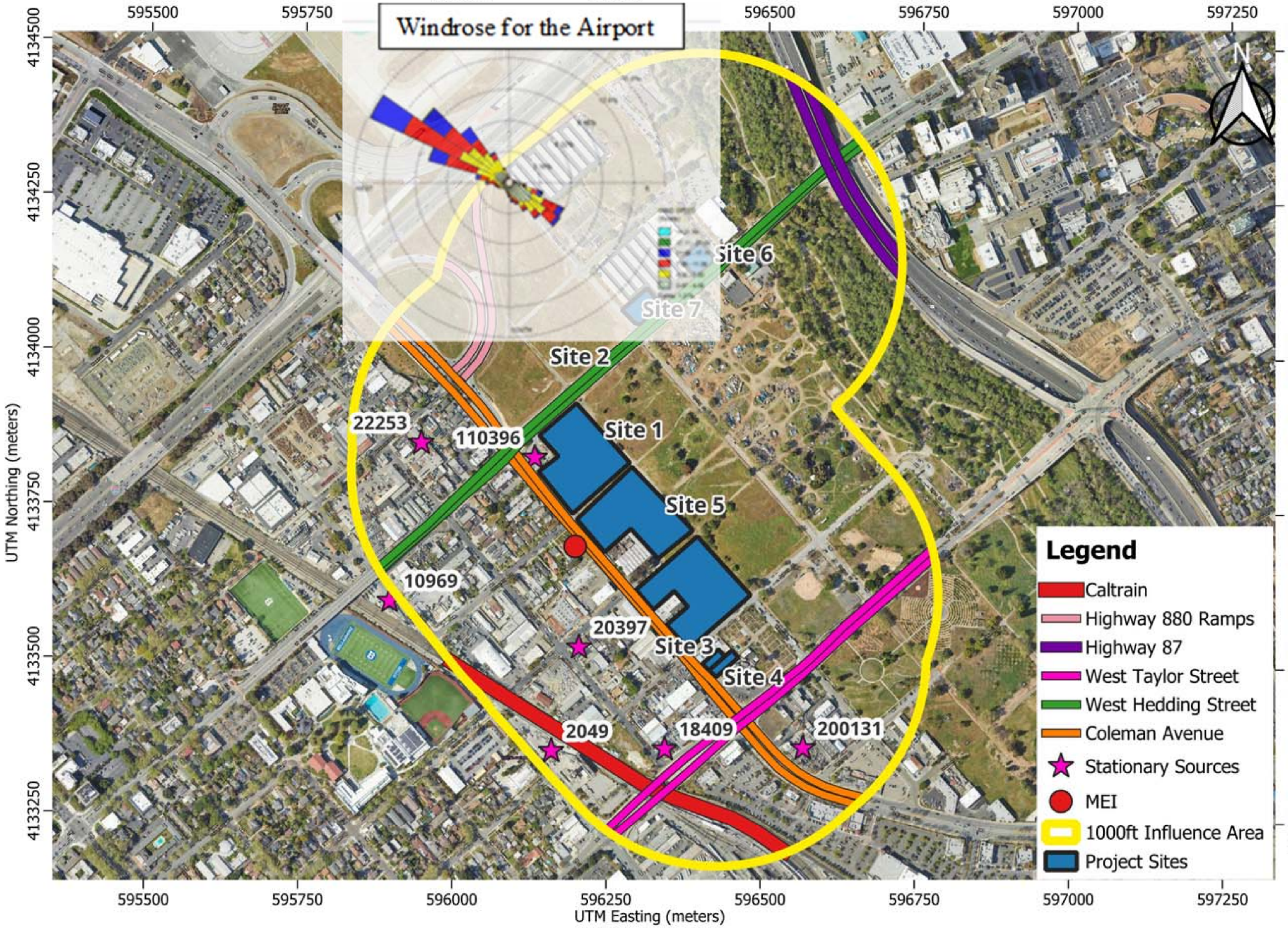
Source		Cancer Risk[1] (per million)	Annual $PM_{2.5}$[1] ($\mu g/m^3$)	Hazard Index
Project Construction (Years 0 – 2)	Unmitigated	4.92 (infant)	0.03	0.01
Project Emergency Generator (Years 2 – 30)		0.38	<0.01	<0.01
Project Operational Truck Trips (Years 2 – 30)		1.65	<0.01	<0.01
Project Operational Vehicle Trips (Years 2 – 30)		1.29	0.10	<0.01
Total/Maximum Project Impact (Years 0-30)	Unmitigated	8.24	0.10	0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*

Cumulative Health Risks of all TAC Sources at the Off-Site Project MEIs

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

A review of the project area using traffic data collected by Caltrans and the City of San Jose indicates traffic on State Route 87, the ramps for Highway 880, Coleman Avenue, West Hedding Street, and West Taylor Street exceeds 10,000 vehicles per day. Other nearby streets would have less than 10,000 vehicles per day and are considered negligible sources of TACs. A review of BAAQMD's geographic information systems (GIS) screening maps identified the existing health risks at the MEI. There are seven existing stationary sources of TACs with the potential to affect the project MEI. A Caltrain line is also located within 1,000 feet of the project site, so the screening-level impacts from rail lines were evaluated. Health risk impacts from these sources upon the MEIs are reported in Table 15. Figure 6 shows the location of the sources affecting the MEIs. Details of the modeling and health risk calculations are included in *Attachment 3.*

Figure 6. Project Site and Nearby TAC and $PM_{2.5}$ Sources



Highways – State Route 87, Highway 880 Ramps

The project MEI is located near State Route 87 (S.R. 87) and the ramps on and off of Highway 880. 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 S.R. 87 and the Highway 880 ramps. A review of the traffic information reported by Caltrans indicates that S.R. 87 traffic includes 70,000 vehicles per day (based on an annual average)[28] that are about 3.70 percent trucks, of which 1.0 percent are considered diesel heavy duty trucks and 2.7 percent are medium duty trucks.[29] For the Highway 880 ramps, only two of the four ramps are within 1,000 feet of the project site. These two ramps include 5,000 vehicles per day (based on an annual average)[30] that are about 4.19 percent trucks, of which 1.9 percent are considered diesel heavy duty trucks and 2.3 percent are medium duty trucks[31].

Local Roadways – Coleman Avenue, West Hedding Street, & West Taylor Street

A refined analysis of potential health impacts from vehicle traffic on Coleman Avenue, West Hedding Street, and West Taylor Street was conducted since those roadways were estimated to have average daily traffic (ADT) exceeding 10,000 vehicles. 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.

Traffic Emissions Modeling

The traffic emissions modeling was conducted in the same manner as described above for the project's operational trips. However, year 2026 (construction year) emission factors were conservatively assumed as being representative of future conditions, instead of 2028 (operational year). Furthermore, the CT-EMFAC2021 emission factors were adjusted to include the local truck mix for S.R. 87 and the Highway 880 ramps.

The ADT volumes and truck percentages were based on Caltrans data for S.R. 87 and Highway 880. Traffic volumes were assumed to increase 1 percent per year for a total of 73,500 vehicles on S.R. 87 and 5,350 vehicles on the Highway 880 ramps. Hourly traffic distributions specific to these segments of S.R. 87 and Highway 880 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.[32] The fraction of traffic volume each hour was calculated and applied to the 2026 average daily traffic volumes estimate to estimate hourly traffic emission rates for S.R. 87 and the Highway 880 ramps.

Based on traffic data from the Caltrans PeMS, traffic speeds during the daytime and nighttime periods were identified. For northbound traffic on S.R. 87, the following was assumed for all vehicles:

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[28] Caltrans. 2021. *2021 Traffic Volumes California State Highways.*
[29] Caltrans. 2021. *2021 Annual Average Daily Truck Traffic on the California State Highway System.*
[30] Caltrans. 2021. *2021 Traffic Volumes California State Highways.*
[31] Caltrans. 2021. *2021 Annual Average Daily Truck Traffic on the California State Highway System.*
[32] https://dot.ca.gov/programs/traffic-operations/mpr/pems-source

- 70 mph – From 12:00 a.m. until 6:00 a.m. and 1:00 p.m. until 12:00 a.m.
- 65 mph – From 6:00 a.m. until 8:00 a.m. and 9:00 a.m. until 10:00 a.m.
- 60 mph – From 8:00 a.m. until 9:00 a.m.

For southbound traffic on S.R. 87, the following was assumed for all vehicles:

- 65 mph – From 12:00 a.m. until 3:00 p.m.
- 60 mph – From 3:00 p.m. until 4:00 p.m. and 6:00 p.m until 7:00 p.m.
- 55 mph – From 4:00 p.m. until 6:00 p.m.

The ADT for each local roadway was calculated based on traffic data provided by the City of San Jose's traffic volumes website.[33] Assuming a 1 percent per year increase, the predicted ADT on Coleman Avenue was 36,545 vehicles, 19,394 vehicles on West Hedding Street, and 32,210 vehicles on West Taylor Street, respectively. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[34] which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for each roadway. An average travel speed of 35 mph for traffic on each local roadway was used for all hours of the day based on posted speed limit signs on each roadway.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the EPA AERMOD air quality dispersion model, which is recommended by the BAAQMD for this type of analysis.[35] TAC and $PM_{2.5}$ emissions from traffic on S.R. 87, the Highway 880 ramps, Coleman Avenue, West Hedding Street, and West Taylor Street within 1,000 feet of the project site were evaluated. Vehicle traffic on the roadways was modeled using a series of area sources along a line (line area sources); with line segments used for travel on the roadways in opposing directions. The same meteorological data and off-site sensitive receptors used in the previous construction site dispersion modeling scenario were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations. Annual TAC and $PM_{2.5}$ concentrations using 2026 emissions from traffic on each 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 residents in the single-family residence.

Computed Cancer and Non-Cancer Health Impacts

The cancer risk, $PM_{2.5}$ concentration, and HI impacts from each roadway on the off-site MEI are shown in Table 15. Figure 6 shows the roadway links modeled and receptor locations where concentrations were calculated. Details of the emission calculations, dispersion modeling, and

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[33] Web: https://csj.maps.arcgis.com/apps/webappviewer/index.html?id=067fbd3db8dd44f8a60f48148331b3d7
[34] 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.
[35] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012

cancer risk calculations for the receptors with the maximum cancer risk from traffic on each roadway are provided in *Attachment 3.*

BAAQMD Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2021* GIS map website.[36] This mapping tool identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for OEHHA guidance. Six sources were identified using this tool. The BAAQMD GIS website provided screening risks and hazards for the sources.

The screening risk and hazard levels provided by BAAQMD for the stationary sources were adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines and Generic Sources.* Health risk impacts from the stationary source upon the MEIs are reported in Table 15.
Source #2049, Central Concrete Supply Company Inc., is a concrete batch plant that is over 1,000 feet downwind of the MEI. Due to the distance and wind direction in the area, the impacts from this plant on the MEI would be negligible.

Source #37953, 7-Eleven Inc. Gasoline Dispensing Facility, was computed using CARB's *Gasoline Station Risk Screening Tool.* This facility was assumed to have a throughput of 1.5 million gallons of gasoline per year, which is considered a higher-volume gas station[37].

Caltrain Line

The project MEI is located near a Caltrain line. Railway health risk screening data provided by BAAQMD was incorporated into this analysis. BAAQMD raster files provide screening-level cancer risk, $PM_{2.5}$ concentrations, and HI for railways within the Bay Area and were produced using AERMOD and 20x20-meter emissions grid. Note BAAQMD screening data include the contributions from sources beyond 1,000 feet of a project.

Screening-level cancer risk, $PM_{2.5}$ concentration, and HI at the project MEI was identified using GIS software and are listed in Table 15 and included in *Attachment 3*. Refined modeling of the railway would have resulted in even lower risk values. Note that BAAQMD's screening values are considered higher than values that would be obtained with refined modeling methods.

Norman Y. Mineta San José International Airport

While project sites within the GPA are near the Norman Y. Mineta San José International Airport (Airport), the MEI is located over 2,000 feet from the closest runways and over 3,000 feet from the closest terminal operations. The MEI is not downwind of these areas as winds generally blow from the west-northwest and northwest and almost never from the north or northeast, which would

[36] BAAQMD, Web: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3
[37] California Energy Commission (CEC) reports 11,618 million gallons sold in 2021 through 8,161 stations. This station was assumed to have a throughput 10 times the average station in California. See *California Retail Fuel Outlet Annual Reporting (CEC-A15) Results* https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting Accessed No. 17, 2023.

put the MEI in a downwind location.

The Airport is a source of air pollutant and TAC emissions. The only quantification of Airport impacts is the Amendment to Airport Master Plan Integrated Final EIR, published by the City of San Jose in 2020. That study found cumulative construction plus operation health risks to be an increase in cancer risk of 5.7 chances per million and increased $PM_{2.5}$ concentrations of 0.15µg/m^3 at the location of that study's MEI receptor, which was not close to the MEI identified in this study. Impacts to the MEI for this assessment would be much lower given the large distance from most sources of Airport emissions and the dispersion patterns. Given the large distance, wind patterns and relatively low risks predicted in the Airport Master Plan health risk assessment, this source was not considered in the cumulative analysis.

Summary of Cumulative Risks at the Project MEI

Table 15 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by project construction (i.e., the MEI). The project does not exceed the BAAQMD single-source or cumulative-source thresholds for cancer risk, annual $PM_{2.5}$ concentration, and HI at the MEI.

Table 15. Cumulative Health Risk Impacts at the Project MEIs

Source	Cancer Risk[1] (per million)	Annual $PM_{2.5}$[1] ($\mu g/m^3$)	Hazard Index
Project Impacts			
Maximum Project Construction Impact (Years 0-30) Unmitigated	8.24	0.10	0.01
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold? Unmitigated	*No*	*No*	*No*
Cumulative Impacts			
Highway 87, ADT 73,500 (Refined modeling)	0.02	<0.01	<0.01
Highway 880 Ramps, ADT 5,350 (Refined modeling)	0.02	<0.01	<0.01
Coleman Avenue, ADT 36,545 (Refined modeling)	5.06	0.36	<0.01
West Hedding Street, ADT 19,394 (Refined modeling)	0.46	0.03	<0.01
West Taylor Street, ADT 32,210 (Refined modeling)	0.36	0.02	<0.01
Caltrain Railway, BAAQMD Raster (Screening)	42.85	0.05	0.01
Central Concrete Supply Company Inc. (Facility ID #2049, Ready-Mix Concrete Manufacturing), MEI at 1000+ feet	-	--*	-
Michael J's Body Shop (Facility ID #18409, Automotive Body, Paint, and Interior Repair and Maintenance), MEI at 1000+ feet	-	-	--*
Progressive Collision Repair (Facility ID #20397, Automotive Body, Paint, and Interior Repair and Maintenance), MEI at 385 feet (Screening)	-	-	<0.01
Andrew G's Bodyshop Inc (Facility ID #22253, Automotive Body, Paint, and Interior Repair and Maintenance), MEI at 1000+ feet	-	`-	-
7-Eleven Inc. #37953 (Facility ID #110396, Gas Dispensing Facility), MEI at 580 feet (Screening)	0.45	-	0.12
JMS Auto Body (Facility ID #200131, Automotive Body, Paint, and Interior Repair and Maintenance), MEI at 1000+ Feet	-	-	-
Combined Sources Unmitigated	57.5	0.58	0.11
BAAQMD Cumulative Source Threshold	***100***	***0.8***	***10.0***
Exceed Threshold? Unmitigated	*No*	*No*	*No*

*Source is well over 1,000 feet away and downwind.

Conclusion Regarding Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations.

Impact AIR-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Future construction activities in the GPA area could result in odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited. Therefore, odors from construction that could cause complaints from the general public and affect a substantial number of people are not expected.

BAAQMD has identified a variety of land uses and types of operations that produce emissions that may lead to odors in their CEQA Air Quality Guidelines. Various uses developed under the GPA could create localized odors. An example would include restaurants or small water treatment facilities or other industrial uses could be developed that have localized odors. The San José General Plan addresses odor sources by requiring an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

San José General Plan Policies

General Plan policies are intended to minimize and avoid exposure of residents to objectionable odors. The applicable policy is as follows:

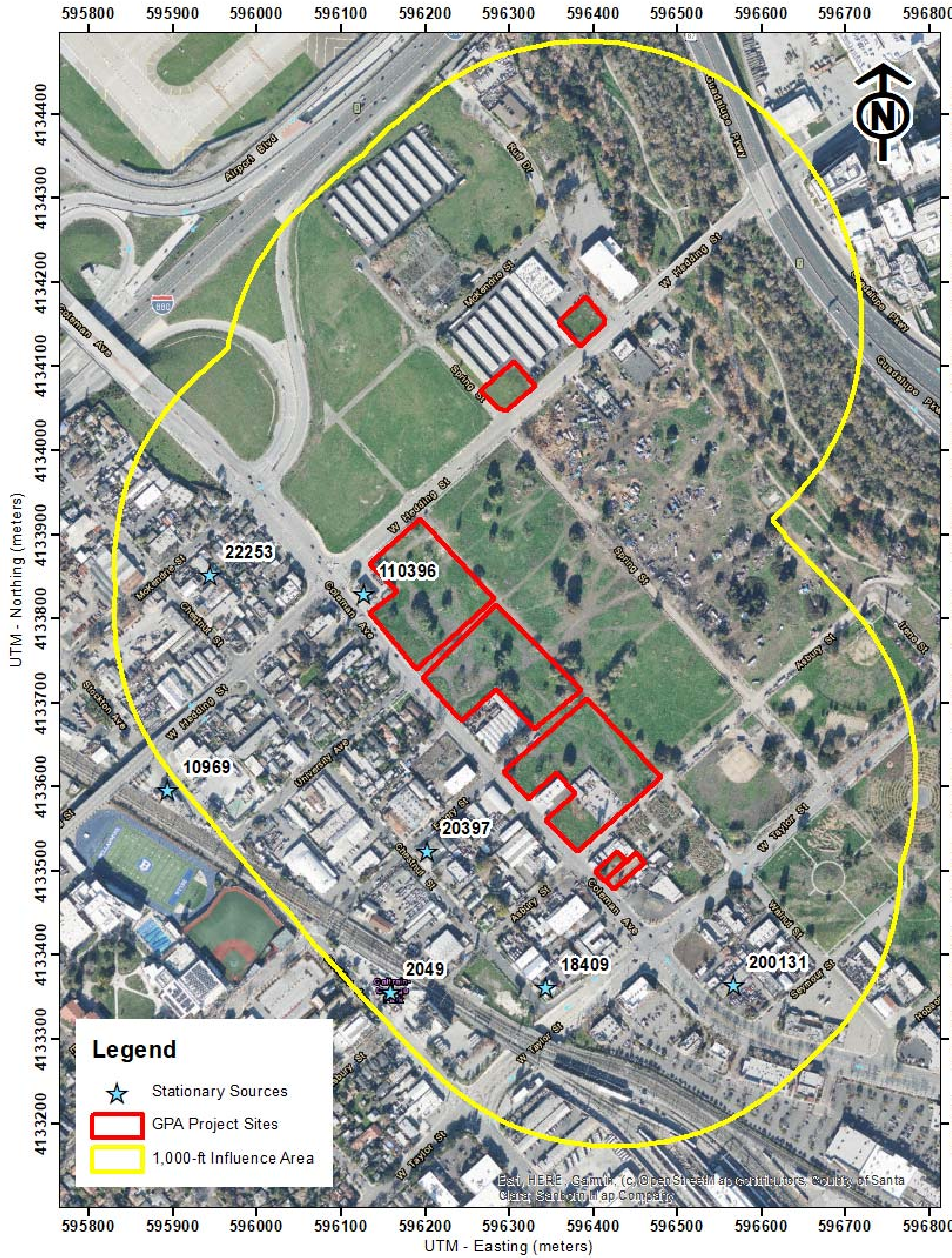
<u>Policy MS-12.1:</u>

For new, expanded, or modified facilities that are potential sources of objectionable odors (such as landfills, green waste and resource recovery facilities, wastewater treatment facilities, asphalt batch plants, and food processors), the City requires an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

Effectiveness of MS-12.1

The implementation of MS-12.1 would require projects that generate objectionable odors to minimize the impacts to residents.

Figure 5. GPA Project Site and Nearby TAC and $PM_{2.5}$ Sources



Conclusion Regarding Impact AIR-4: The project would not expose sensitive receptors to emissions (such as those leading to odors) adversely affecting a substantial number of people.

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).[38] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2020 emissions.[39] 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 85 percent below 1990 levels.

The first Scoping Plan for AB 32 was adopted by CARB in December 2008. Its most recent update was completed in December of 2022[40]. It contains the State's main strategies to achieve carbon neutrality by 2045. This plan extends and expands upon the earlier versions with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. It also takes the step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Measures to achieve carbon neutrality include rapidly moving to zero emission vehicles (ZEV),

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[38] 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

[39] 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

[40] CARB. 2022. Final 2022 Scoping Plan Update and Appendices. Web: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents

removing natural gas as an option for space conditioning, increasing the number of solar arrays and wind turbines, and scaling up renewable hydrogen for hard-to-electrify end uses.

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

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g., ABAG and MTC) to align their regional transportation, housing, and land use plans to reduce VMT and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

Senate Bill 350 - Renewable Portfolio Standards

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

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*.[41] 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.

[41] 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

- 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.[42]

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.
- 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

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

multimodal transportation[43]. 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 creating policies/programs that would meet this goal.

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 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 resources 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.[44] 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

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

[44] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.

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.[45]

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.

CEC studies have identified the most aggressive electrification scenario as putting the building sector on track to reach the carbon neutrality goal by 2045.[46] 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.

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[45] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

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

City of San José

San José Envision 2040 General Plan

Environmental Leadership.

Goal MS-1 **Green Building Policy Leadership.** Demonstrate San José's commitment to local and global Environmental Leadership through progressive use of green building policies, practices, and technologies to achieve 100 million square feet of new or retrofitted green buildings by 2040.

Policies:

MS-1.5 Advocate for new or revised local, regional, state, or national policies and laws that further the use of green building techniques and to further the development of green building technology. Support the development and implementation of new and innovative technologies to achieve the construction of all types of environmentally high-performing buildings.

MS-1.6 Recognize the interconnected nature of green building systems, and, in the implementation of Green Building Policies, give priority to green building options that provide environmental benefit by reducing water and/or energy use and solid waste.

Goal MS-2 **Energy Conservation and Renewable Energy Use.** Maximize the use of green building practices in new and existing development to maximize energy efficiency and conservation and to maximize the use of renewable energy sources.

Policies:

MS-2.1 Develop and maintain policies, zoning regulations, and guidelines that require energy conservation and use of renewable energy sources.

MS-2.2 Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.

MS-2.3 Utilize solar orientation (i.e., building placement), landscaping, design, and construction techniques for new construction to minimize energy consumption.

MS-2.4 Promote energy efficient construction industry practices.

MS-2.6 Promote roofing design and surface treatments that reduce the heat island effect of new and existing development and support reduced energy use, reduced air pollution, and a healthy urban forest. Connect businesses and residents with cool roof rebate programs through City outreach efforts.

MS-2.7 Encourage the installation of solar panels or other clean energy power generation sources over parking areas.

Actions:

MS-2.11 Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).

MS-2.12 Update the Green Building Ordinance to require use of energy efficient plumbing fixtures and appliances that are Water Sense certified, Energy Star rated, or equivalent, in new construction and renovation projects.

Goal MS-14 **Reduce Consumption and Increase Efficiency.** Reduce per capita energy consumption by at least 50% compared to 2008 levels by 2022 and maintain or reduce net aggregate energy consumption levels equivalent to the 2022 (Green Vision) level through 2040.

Policies:

MS-14.4 Implement the City's Green Building Policies (see Green Building Section) so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption.

Land Use and Transportation

Goal TR-1 **Balanced Transportation System.** Complete and maintain a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobile, buses, and trucks.

Policies:

TR-1.8 Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emission standards are met.

Goal TR-7 **Transportation Demand Management.** Implement effective Transportation Demand Management (TDM) strategies that minimize vehicle trips and vehicle miles traveled.

Policies:

TR-7.1 Require large developments and employers to develop and maintain TDM programs with TDM services provided for their residents, full-time and subcontracted workers, and visitors to promote use of non-automobile modes and reduce the vehicle trips.

Actions:

TR-7.2 Support establishment of transportation management associations (TMA) made up of employers, developers, and property managers in transit-oriented areas working together to manage transportation through incentives, programs, events, and advocacy that help reduce the number of drive-alone trips, minimize vehicle emissions, and improve access to transportation options.

Implementation

Goal IP-2 **Major Review Monitor progress toward General Plan Vision, goals and policies through a periodic Major Review.** Evaluate the successes of the Envision General Plan's implementation and consider refinement of the Land Use/Transportation Diagram and the Envision General Plan Policies to ensure their achievement.

Policies:

IP-2.4 Conduct a Major Review of the *Envision General Plan* by the City Council every four years to evaluate the City's achievement of key economic development, fiscal and infrastructure/service goals, greenhouse gas emission reduction goals and targets, water conservation and recycling goals, availability and affordability of housing supply, Healthful Community goals, and to review changes and trends in land use and development. Amend the Land Use/Transportation Diagram, and/or *Envision General Plan* goals, policies, and actions accordingly.

Goal IP-3 **General Plan Annual Review and Measurable Sustainability.** Evaluate the progress of the Envision General Plan's implementation actions and programs, and the Green House Gas (GHG) reduction strategies using its Performance Measures and the Council's Climate Action/Green House Gas Reduction Policy and, as needed, refine Envision General Plan goals and policies and the Land Use / Transportation Diagram during Annual Review.

Policies:

IP-3.7 Monitor, evaluate and annually report on the success of the programs and actions contained within the Greenhouse Gas Reduction City Council Policy to demonstrate progress toward achieving required State of California Greenhouse Gas reduction targets (at or below 1990-equivalent levels) by 2020, 2030, 2040 and 2050. Refine existing programs and/or identify new programs and actions to ensure compliance and update the Council Policy as necessary.

Actions:

IP-3.9 Update the Greenhouse Gas Reduction Strategy targets and policies to ensure compliance with State Senate Bill 32 2030 targets within two years of completion of the Second Update to the California Climate Scoping Plan.

IP-3.10 To facilitate implementation of greenhouse gas reduction measures as part of development review, adopt a City Council Policy that guides analyses and determinations regarding the conformance of proposed development with the City's adopted Greenhouse Gas Emission Reduction Strategy. Adopt a City Council Policy within two years of completion of the Second Update to the California Climate Scoping Plan.

Goal IP-17 Environmental Leadership/Stewardship Use the City's Climate Smart San José plan and other special environmental policy documents as General Plan Implementation tools to further the City's Environmental Leadership role.

Policies:

IP-17.2 Develop and maintain a Greenhouse Gas Reduction Strategy or equivalent policy document as a road map for the reduction of greenhouse gas emissions within San José, including those with a direct relationship to land use and transportation. The Greenhouse Gas Reduction Strategy identifies the specific items within the *Envision General Plan* that contribute to the reduction of greenhouse gas emissions and considers the degree to which they will achieve its goals. The *Envision General Plan* and Land Use / Transportation Diagram contain multiple goals and policies which will contribute to the City's reduction of greenhouse gas emissions, including a significant reliance upon new growth taking place in a more compact urban form that facilitates walking, mass transit, or bicycling.

City of San José 2030 Greenhouse Gas Reduction Strategy

The City of San José 2030 Greenhouse Gas Reduction Strategy[47] (2030 GHGRS) is a plan to reduce GHG emissions and address climate change. Adopted in August 2020, the 2030 GHGRS contains goals and strategies to reduce greenhouse gas emissions by 40 percent below 1990 levels by 2030 and to meet the long-term target of carbon neutrality by 2045, in accordance with the AB 32 "Climate Change Scoping Plan" and SB 32 "The Global Warming Solutions Act of 2006". The 2030 GHGRS serves as San José's qualified climate action plan (CAP). The Development Compliance Checklist serves to apply the relevant General Plan and 2030 GHGRS policies through a streamlined review process for proposed new development projects.

BAAQMD GHG Significance Thresholds

[47] City of San José , *Greenhouse Gas Reduction Strategy*, August 2020. Web: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/environmental-review/greenhouse-gas-reduction-strategy. Accessed on 08/07/2023.

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

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) <u>or meet a locally adopted Senate Bill 743 VMT target</u>, 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).

New land use projects are required to meet either section A or B from the above list, not both, to be considered less than significant.

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

GHG emissions associated with development of the proposed projects built under the GPA 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 emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. GHG emissions for the GPA buildout are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

<u>CalEEMod Modeling</u>

CalEEMod was used to predict GHG emissions assuming full build-out of the land uses under the proposed project. The project land use types and size and other project-specific information were input to the model, as described above within the operational period emissions. CalEEMod output is included in *Attachment 1*.

Buildout Emissions

The CalEEMod model along with the vehicle trip generation rates and VMT for the project were used to estimate daily emissions associated with the project. The project will be required to implement a TDM Plan in order to mitigate a VMT impact. It should be noted that the VMT/TDM reduction was not included in the traffic analysis's trip generation and is not included in the unmitigated emissions analysis. As shown in Table 13, the net annual emissions resulting from operation of the land uses on the seven parcels are predicted to be 872 MT of CO_2e when the buildout scenario is completed in 2035. In terms of per capita emissions, the project would result in 1.35 MT CO_{2e}/year/capita.

The emissions forecast presented in Table 13 are based on current accepted modeling methods that include use of EMFAC2021 mobile emission factors, current solid waste generation rates and processing, and current emissions associated with water usage.

Mobile emissions are currently modeled to make up about 95 percent of project-generated emissions in 2035. The modeling of these emissions are based on the use of EMFAC2021 that does not include California's latest Advanced Clean Cars and Advanced Clean Trucks regulations. These regulations along with future reformulated fuel standards will reduce mobile emissions substantially. Additionally, new rules and regulations are likely to be adopted in the future, prior to 2035, that would reduce mobile emissions.

Energy is the second highest source of GHG emissions, at about 3 percent of future emissions. These emissions were predicted based on the current emission factor rate of 178 pounds of CO_2 per megawatt of electricity produced which is based on San José Clean Energy's (SJCE) 2020 emissions rate.[48] Climate Smart San José and San José's Greenhouse Gas Reduction Strategy, SJCE's goal is to provide 100-percent carbon-free electricity prior to 2030.[49] Therefore, this will reduce emissions from energy.

Solid waste is the third highest source of GHG emissions, at about 1 percent of future emissions. These emissions were predicted based on current rates assigned by CalEEMod. GHG emissions associated with solid waste generation are predicted based on the transportation and processing of the waste stream. New measures to reduce solid waste, reducing emissions from hauling of solid waste and reuse of methane generated can greatly reduce these emissions.

Emissions associated with water usage make up less than 1 percent of total GPA emissions. These emissions are likely to be reduced through greater water conservation efforts, use of recycled water available in the area for outdoor water usage, and the use of electricity generated from carbon-free sources.

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[48] San José Clean Energy Website, Standard GreenSource service. Web: https://sanjosecleanenergy.org/commercial-rates/
[49] City of San José, 2020. "2030 Greenhouse Gas Reduction Strategy", August. Web: https://www.sanjoseca.gov/home/showpublisheddocument/63667/637347412207870000

Table 13. Annual Plan GHG Emissions (CO_2e) in Metric Tons and Per Capita

Source Category	Proposed Project Buildout in 2035
Mobile[1]	545
Area	4
Energy Consumption	216
Water Usage	22
Solid Waste Generation	85
Net Total (MT CO_{2e}/year)	872
Per Capita Emissions (MT CO_{2e}/year/capita)	1.35

[1] Does not include effects of *Advanced Clean Cars II* that will phase out the sale of combustion emission vehicles by 2035.

BAAQMD in their latest adopted GHG thresholds recommend that the significance of project level GHG emissions be evaluated based on consistency with a qualified GHG reduction plan or meet design elements that are critical in reducing GHG emissions.

The City does have a qualified CAP that includes a Development Compliance Checklist, so GPA projects would have to conform to the CAP and Checklist to have a less than significant impact.

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

Plan Consistency

BAAQMD considerers a long-term communitywide plan (e.g., general plans, long-range development plans, climate action plans) to have a less-than-significant climate impact if it demonstrates that GHG emissions from the area will decline consistent with California's GHG reduction targets of 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. The GPA is considered to fall under the category of long-range development plans. As shown in Table 13, the GPA is predicted to increase emissions in the area by up to 872 MT CO_2e/year through the addition of industrial/commercial land uses.

To meet the BAAQMD's GHG thresholds, whether by conforming to the City's qualified CAP and Checklist or by meeting the minimum project design elements, the proposed project is required to demonstrate the following:

1. Avoid construction of new natural gas connections:
   Project Conforms – the GPA projects would be required to comply with the City Municipal Code prohibiting natural gas and only allowing all electric infrastructure in new buildings.
2. Avoid wasteful or inefficient use of electricity:
   Project Conforms – the GPA projects would be required would meet CALGreen Building Standards Code requirements that are considered to be energy efficient.
3. Include electric vehicle (EV) charging infrastructure that meets current Building Code CALGreen Tier 2 compliance,
   Project Conforms – the GPA projects would be required would include electric vehicle charging infrastructure that meets or exceeds current Building Code CALGreen Tier 2 compliance.

4. Reduce VMT per service population by 15 percent over regional average.
   The unmitigated Project does not conform – The results of the VMT analysis[50] indicate that the office equivalent of the proposed project is projected to generate 12.89 VMT per employee, which exceeds the 12.21 VMT per employee for office land uses threshold.

The GPA projects are anticipated to comply with three of the four requirements of BAAQMD"s GHG thresholds. This would lead to a significant impact for the GPA's GHG emissions.

Mitigation: Traffic

Several physical improvements (e.g., multi-modal bike lanes, traffic calming improvements, and Transportation Demand Management (TDM) measures) were identified that the project will be required to implement for the purpose of reducing VMT. These would be implemented as transportation mitigation measures (listed below):

1. Provide Class IV protected bike lanes using raised vertical delineators on Hedding Street eastbound between Coleman Avenue and Ruff Drive as well as on Hedding Street westbound between Walnut Street and Ruff Drive.

2. Removal of an eastbound travel lane on Hedding Street between Walnut Street and Ruff Drive to provide a more bicycle-friendly roadway.

3. Implement TDM plans that include marketing/educational campaigns that promote the use of transit, shared rides, and travel through active modes. Strategies may include the incorporation of alternative commute options into new employee orientations, event promotions, and publications. The TDM Plan(s) shall include a trip cap for VMT monitoring purposes. The trip cap shall be determined by a traffic engineer using the methodology employed in this EIR, such that the number of trips will not translate into an increase in VMT over No Project conditions.

By implementing the 3 traffic mitigation measures, the projected VMT generated by the project would be reduced to 12.10 mile per capita. This would reduce the per capita rate to below the City's threshold of 12.21 miles (VMT) per employee, where the GPA projects would conform to the BAAQMD-recommended GHG threshold.

Conclusion Regarding Impact GHG-1 and GHG-2: With the implementation of the traffic mitigation described above, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment nor conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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[50] Hexagon Transportation Consultants, Inc., *Guadalupe Gardens Transportation Analysis*, July 28, 2023

Supporting Documentation

Attachment 1 includes the CalEEMod output for project operational criteria air pollutants. Also included are any modeling assumptions.

Attachment 2 includes the cumulative risk screening impacts from sources affecting the proposed future GPA area.

Attachment 3 includes the CalEEMod output for project construction criteria air pollutants and health risk analysis.

Attachment 4 includes the cumulative health risk calculations, modeling results, and health risk calculations from sources affecting the MEI.

Attachment 1: CalEEMod Modeling Inputs and Outputs

Operational Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5			
Year	Tons						
Mobile	2.89	0.96	0.38	0.10			
Area	1.31	0.01	0.002	0.001			
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	4.20	0.97	0.39	0.10			
	Existing Use Emissions						
Total							
	Net Annual Operational Emissions						
Tons/year	4.20	0.97	0.39	0.10			
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**			
	Average Daily Emissions						
Pounds Per Day	23.03	5.33	2.11	0.56			
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			

Category	**CO2e**				
	Project	Existing	Project 2030	Existing	
Mobile	546.54				
Area	3.79				
Energy	215.80				
Water	21.91				
Waste	84.80				
TOTAL	872.85	0.00	0.00	0.00	
Net GHG Emissions		872.85		0.00	
Service Population	647.00				
Per Capita Emissions		1.35		0.00	

Traffic Consultant Trip Gen						CalEEMod Default		
Land Use		Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun
Strip Mall	ksf	258.72	9575	9575	***37.01***	44.31999969	42.04	20.43
						Rev	***35.11***	***17.06***

		Daily		AM Peak Hour Trip			PM Peak Hour Trip		
Land Use	**Size**	**Rate**	**Trip**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Proposed Land Uses									
#820 - Shopping Center (>150k)	258,720 Square Feet	37.010	9,575	135	82	217	422	458	880

Source: ITE Trip Generation Manual, 11th Edition 2021.

23-103 Guadalupe Gardens GPA 2035 VMT Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	23-103 Guadalupe Gardens GPA 2035 VMT
Operational Year	2035
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	1.60
Location	Spring St, San Jose, CA 95110, USA
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1800
EDFZ	1
Electric Utility	San Jose Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.17

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Strip Mall	259	1000sqft	10.3	258,720	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	26.3	5.37	0.05	2.26	2.32	0.05	0.57	0.62	5,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	23.9	6.16	0.03	2.26	2.30	0.03	0.57	0.61	5,563
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	23.0	5.33	0.04	2.07	2.11	0.04	0.52	0.56	5,274
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	4.20	0.97	0.01	0.38	0.39	0.01	0.10	0.10	873

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	18.2	5.27	0.03	2.26	2.30	0.03	0.57	0.61	3,684
Area	8.13	0.09	0.02	—	0.02	0.02	—	0.02	46.4
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	1,303
Water	—	—	—	—	—	—	—	—	132

Waste	—	—	—	—	—	—	—	—	512
Refrig.	—	—	—	—	—	—	—	—	1.61
Total	26.3	5.37	0.05	2.26	2.32	0.05	0.57	0.62	5,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	17.6	6.16	0.03	2.26	2.30	0.03	0.57	0.61	3,613
Area	6.28	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	1,303
Water	—	—	—	—	—	—	—	—	132
Waste	—	—	—	—	—	—	—	—	512
Refrig.	—	—	—	—	—	—	—	—	1.61
Total	23.9	6.16	0.03	2.26	2.30	0.03	0.57	0.61	5,563
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	15.8	5.28	0.03	2.07	2.10	0.03	0.52	0.55	3,301
Area	7.19	0.05	0.01	—	0.01	0.01	—	0.01	22.9
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	1,303
Water	—	—	—	—	—	—	—	—	132
Waste	—	—	—	—	—	—	—	—	512
Refrig.	—	—	—	—	—	—	—	—	1.61
Total	23.0	5.33	0.04	2.07	2.11	0.04	0.52	0.56	5,274
Annual	—	—	—	—	—	—	—	—	—
Mobile	2.89	0.96	0.01	0.38	0.38	0.01	0.10	0.10	547
Area	1.31	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.79
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	216
Water	—	—	—	—	—	—	—	—	21.9
Waste	—	—	—	—	—	—	—	—	84.8
Refrig.	—	—	—	—	—	—	—	—	0.27
Total	4.20	0.97	0.01	0.38	0.39	0.01	0.10	0.10	873

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	18.2	5.27	0.03	2.26	2.30	0.03	0.57	0.61	3,684
Total	18.2	5.27	0.03	2.26	2.30	0.03	0.57	0.61	3,684
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	17.6	6.16	0.03	2.26	2.30	0.03	0.57	0.61	3,613
Total	17.6	6.16	0.03	2.26	2.30	0.03	0.57	0.61	3,613
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	2.89	0.96	0.01	0.38	0.38	0.01	0.10	0.10	547
Total	2.89	0.96	0.01	0.38	0.38	0.01	0.10	0.10	547

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	1,303
Total	—	—	—	—	—	—	—	—	1,303
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Strip Mall	—	—	—	—	—	—	—	—	1,303
Total	—	—	—	—	—	—	—	—	1,303
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	216
Total	—	—	—	—	—	—	—	—	216

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Consumer Products	5.54	—	—	—	—	—	—	—	—
Architectural Coatings	0.74	—	—	—	—	—	—	—	—
Landscape Equipment	1.85	0.09	0.02	—	0.02	0.02	—	0.02	46.4
Total	8.13	0.09	0.02	—	0.02	0.02	—	0.02	46.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Consumer Products	5.54	—	—	—	—	—	—	—	—
Architectural Coatings	0.74	—	—	—	—	—	—	—	—
Total	6.28	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Consumer Products	1.01	—	—	—	—	—	—	—	—
Architectural Coatings	0.13	—	—	—	—	—	—	—	—
Landscape Equipment	0.17	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.79
Total	1.31	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.79

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	132
Total	—	—	—	—	—	—	—	—	132

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	132
Total	—	—	—	—	—	—	—	—	132
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	21.9
Total	—	—	—	—	—	—	—	—	21.9

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	512
Total	—	—	—	—	—	—	—	—	512
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	512
Total	—	—	—	—	—	—	—	—	512
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	84.8
Total	—	—	—	—	—	—	—	—	84.8

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	1.61
Total	—	—	—	—	—	—	—	—	1.61
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	1.61
Total	—	—	—	—	—	—	—	—	1.61
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	0.27
Total	—	—	—	—	—	—	—	—	0.27

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Strip Mall	9,575	9,084	4,414	3,200,193	3,208	3,043	1,479	1,072,190

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	388,080	129,360	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Strip Mall	2,642,840	178	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	19,164,043	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Strip Mall	272	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.6	annual days of extreme heat
Extreme Precipitation	2.55	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8

AQ-PM	34.6
AQ-DPM	90.0
Drinking Water	22.7
Lead Risk Housing	44.6
Pesticides	11.9
Toxic Releases	34.1
Traffic	76.0
Effect Indicators	—
CleanUp Sites	94.5
Groundwater	99.3
Haz Waste Facilities/Generators	96.7
Impaired Water Bodies	43.8
Solid Waste	0.00
Sensitive Population	—
Asthma	49.9
Cardio-vascular	36.5
Low Birth Weights	54.6
Socioeconomic Factor Indicators	—
Education	46.8
Housing	11.6
Linguistic	21.4
Poverty	43.7
Unemployment	51.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	55.19055563
Employed	58.62953933
Median HI	81.39355832
Education	—
Bachelor's or higher	73.95098165
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	47.37585012
Active commuting	90.4914667
Social	—
2-parent households	11.45900167
Voting	75.23418452
Neighborhood	—
Alcohol availability	18.09316053
Park access	81.35506224
Retail density	91.00474785
Supermarket access	81.04709355
Tree canopy	65.73848325
Housing	—
Homeownership	37.76466059
Housing habitability	66.9190299
Low-inc homeowner severe housing cost burden	86.48787373
Low-inc renter severe housing cost burden	61.86321057
Uncrowded housing	85.268831
Health Outcomes	—

Insured adults	60.5800077
Arthritis	94.2
Asthma ER Admissions	43.5
High Blood Pressure	93.3
Cancer (excluding skin)	80.0
Asthma	61.7
Coronary Heart Disease	91.8
Chronic Obstructive Pulmonary Disease	88.0
Diagnosed Diabetes	89.0
Life Expectancy at Birth	93.2
Cognitively Disabled	25.4
Physically Disabled	86.7
Heart Attack ER Admissions	64.5
Mental Health Not Good	62.3
Chronic Kidney Disease	90.3
Obesity	55.2
Pedestrian Injuries	58.7
Physical Health Not Good	77.4
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	13.6
Current Smoker	63.1
No Leisure Time for Physical Activity	76.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	88.7

Elderly	98.6
English Speaking	91.1
Foreign-born	40.7
Outdoor Workers	37.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	10.3
Traffic Density	68.6
Traffic Access	87.4
Other Indices	—
Hardship	28.6
Other Decision Support	—
2016 Voting	71.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	51.0
Healthy Places Index Score for Project Location (b)	78.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	San Jose Clean Energy 2020 rate is 178 lb/MWh.
Land Use	Total acreage and square footage provided in Table 1 of Traffic Report.
Operations: Vehicle Data	Provided trip gen. VMT = 0.34 mi trip length, 100% primary
Operations: Energy Use	San Jose REACH Code - convert natural gas to electric.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

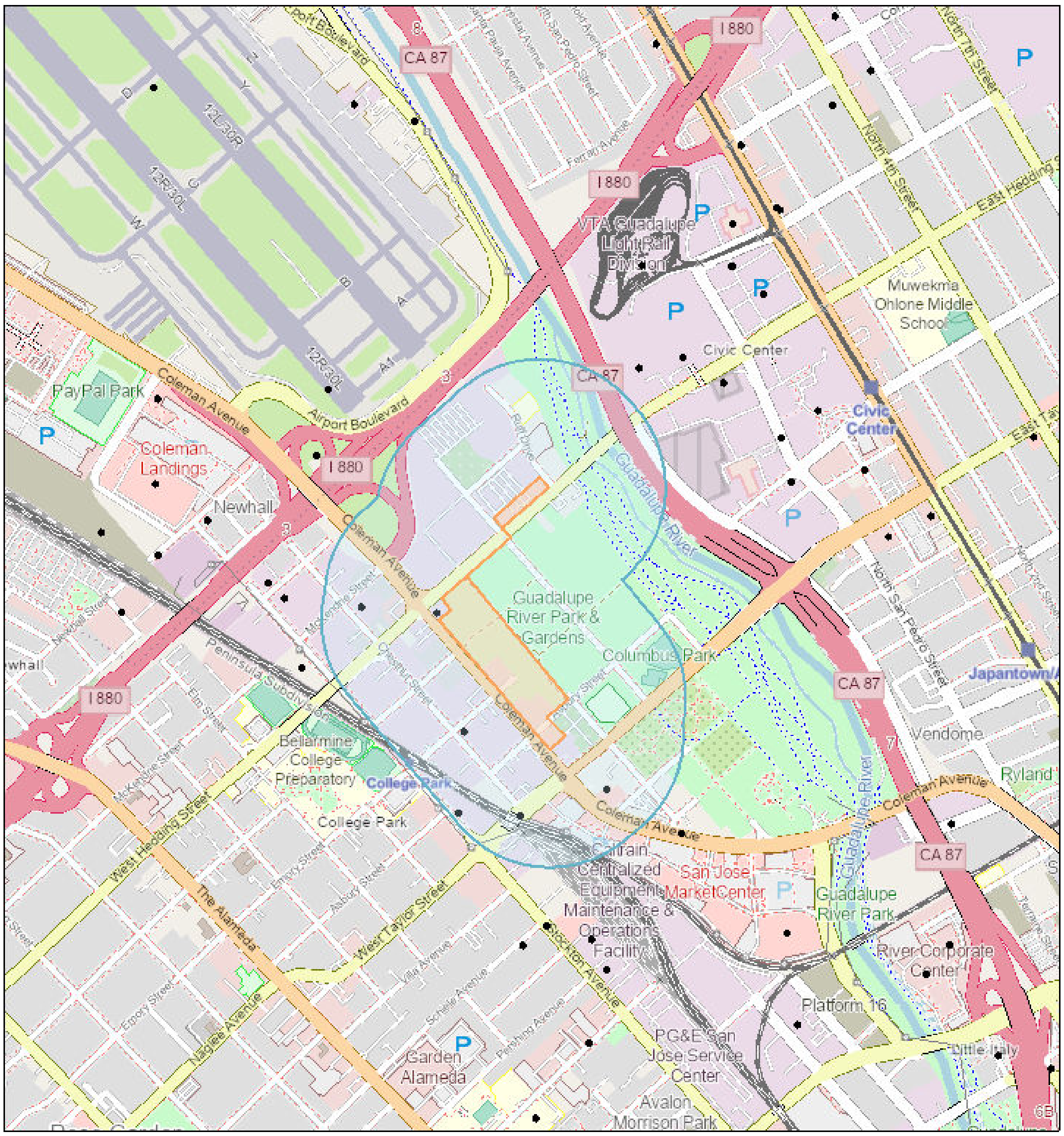
Attachment 2: Cumulative Screening Information

Screening Report

Area of Interest (AOI) Information

Area : 9,667,296.89 ft²

Jun 30 2023 14:57:16 Pacific Daylight Time



• Permitted Stationary Sources

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

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Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	6	N/A	N/A

Permitted Stationary Sources

#	Facility_I	Facility_N	Address	City	State
1	2049	Central Concrete Supply Company Inc	790 Stockton Avenue	San Jose	CA
2	18409	Michael J's Body Shop	597 W Taylor St	San Jose	CA
3	20397	Progressive Collision Repair	790 Chestnut St	San Jose	CA
4	22253	Andrew G's Bodyshop Inc	920 Chestnut St	San Jose	CA
5	110396	7- Eleven Inc. #37953	890 Coleman Ave	San Jose	CA
6	200131	JMS Auto Body	660 COLEMAN AVE	San Jose	CA

#	Zip	County	Latitude	Longitude	Details
1	95126	Santa Clara	37.341499	-121.914076	*No Data*
2	95110	Santa Clara	37.341436	-121.912254	*No Data*
3	95110	Santa Clara	37.343403	-121.913909	*No Data*
4	95110	Santa Clara	37.346302	-121.916900	*No Data*
5	95110	Santa Clara	37.346169	-121.914703	Gas Dispensing Facility
6	95110	Santa Clara	37.342060	-121.909749	*No Data*

#	NAICS	NAICS_Sect	NAICS_Subs	NAICS_Indu	Cancer_Ris
1	327320	Manufacturing	Nonmetallic Mineral Product Manufacturing	Ready-Mix Concrete Manufacturing	0.000000
2	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000
3	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000
4	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000
5	447110	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	16.154000
6	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000

#	Chronic_Ha	PM25	Count
1	0.000000	10.475000	1
2	0.001000	0.000000	1
3	0.001000	0.000000	1
4	0.000000	0.000000	1
5	0.070000	0.000000	1
6	0.000000	0.000000	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.

Attachment 3: CalEEMod Construction Modeling Inputs and Outputs

Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	**CO2e**	
Year	Tons					MT	
Construction Equipment							
2026	0.51	4.69	0.17	0.16		397	
2027	1.34	0.27	0.01	0.01		25	
	Total Construction Emissions (tpy)						
Tons	1.85	4.96	0.18	0.17		421.80	
	Total Construction Emissions (lbs/day)						
Average	12.15	32.63	1.21	1.12		0.00	303.85
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			

23-103 Guadalupe Gardens Construction Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	23-103 Guadalupe Gardens Construction
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	31.0
Location	37.34539891107613, -121.91418467644203
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1800
EDFZ	1
Electric Utility	San Jose Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.25

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

General Office Building	83.4	1000sqft	3.19	83,400	0.00	—	—	—
Parking Lot	16.2	1000sqft	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.42	1.17	10.6	14.3	0.03	0.39	0.38	0.76	0.36	0.09	0.45	—	3,210	3,210	0.14	0.12	2.17	3,251
Mit.	0.58	0.51	10.3	16.2	0.03	0.13	0.38	0.50	0.12	0.09	0.22	—	3,210	3,210	0.14	0.12	2.17	3,251
% Reduced	59%	56%	3%	-13%	—	67%	—	34%	66%	—	52%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	48.5	48.5	29.2	29.4	0.05	1.24	7.81	9.05	1.14	3.97	5.12	—	5,742	5,742	0.32	0.39	0.13	5,865
Mit.	48.4	48.4	15.0	28.9	0.05	0.20	7.81	7.91	0.19	3.97	4.07	—	5,742	5,742	0.32	0.39	0.13	5,865
% Reduced	< 0.5%	< 0.5%	49%	2%	—	84%	—	13%	83%	—	20%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.45	2.44	8.56	10.7	0.02	0.32	0.42	0.74	0.29	0.15	0.44	—	2,371	2,371	0.10	0.08	0.64	2,399
Mit.	2.41	2.41	7.58	11.8	0.02	0.09	0.42	0.51	0.09	0.15	0.24	—	2,371	2,371	0.10	0.08	0.64	2,399
% Reduced	2%	1%	11%	-10%	—	70%	—	30%	69%	—	46%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	0.45	1.56	1.96	< 0.005	0.06	0.08	0.13	0.05	0.03	0.08	—	393	393	0.02	0.01	0.11	397
Mit.	0.44	0.44	1.38	2.16	< 0.005	0.02	0.08	0.09	0.02	0.03	0.04	—	393	393	0.02	0.01	0.11	397
% Reduced	2%	1%	11%	-10%	—	70%	—	30%	69%	—	46%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.42	1.17	10.6	14.3	0.03	0.39	0.38	0.76	0.36	0.09	0.45	—	3,210	3,210	0.14	0.12	2.17	3,251
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.80	3.19	29.2	29.4	0.05	1.24	7.81	9.05	1.14	3.97	5.12	—	5,742	5,742	0.32	0.39	0.13	5,865
2027	48.5	48.5	10.2	14.1	0.03	0.34	0.38	0.72	0.32	0.09	0.41	—	3,177	3,177	0.14	0.12	0.05	3,216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.14	0.93	8.56	10.7	0.02	0.32	0.42	0.74	0.29	0.15	0.44	—	2,371	2,371	0.10	0.08	0.64	2,399
2027	2.45	2.44	0.49	0.73	< 0.005	0.02	0.02	0.03	0.02	< 0.005	0.02	—	133	133	0.01	< 0.005	0.03	134
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.21	0.17	1.56	1.96	< 0.005	0.06	0.08	0.13	0.05	0.03	0.08	—	393	393	0.02	0.01	0.11	397
2027	0.45	0.45	0.09	0.13	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	22.0	22.0	< 0.005	< 0.005	0.01	22.3

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.58	0.51	10.3	16.2	0.03	0.13	0.38	0.50	0.12	0.09	0.22	—	3,210	3,210	0.14	0.12	2.17	3,251
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.91	0.69	15.0	28.9	0.05	0.20	7.81	7.91	0.19	3.97	4.07	—	5,742	5,742	0.32	0.39	0.13	5,865
2027	48.4	48.4	10.3	16.0	0.03	0.13	0.38	0.50	0.12	0.09	0.21	—	3,177	3,177	0.14	0.12	0.05	3,216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.41	0.36	7.58	11.8	0.02	0.09	0.42	0.51	0.09	0.15	0.24	—	2,371	2,371	0.10	0.08	0.64	2,399
2027	2.41	2.41	0.53	0.77	< 0.005	0.01	0.02	0.02	0.01	< 0.005	0.01	—	133	133	0.01	< 0.005	0.03	134
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.07	1.38	2.16	< 0.005	0.02	0.08	0.09	0.02	0.03	0.04	—	393	393	0.02	0.01	0.11	397
2027	0.44	0.44	0.10	0.14	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	22.0	22.0	< 0.005	< 0.005	0.01	22.3

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.73	2.65	0.56	4.07	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	71.2	1,508	1,579	7.42	0.09	0.20	1,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.08	2.05	0.53	0.45	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	71.2	1,493	1,564	7.42	0.09	0.20	1,778
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.57	2.50	0.97	2.62	< 0.005	0.07	0.00	0.07	0.06	0.00	0.06	71.2	1,578	1,649	7.42	0.09	0.20	1,863
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	0.46	0.18	0.48	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	11.8	261	273	1.23	0.02	0.03	308

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.67	2.62	0.03	3.63	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	15.0
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.73	2.65	0.56	4.07	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	71.2	1,508	1,579	7.42	0.09	0.20	1,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.02	2.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.08	2.05	0.53	0.45	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	71.2	1,493	1,564	7.42	0.09	0.20	1,778
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.34	2.32	0.02	1.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.36	7.36	< 0.005	< 0.005	—	7.38
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	0.17	0.15	0.42	0.38	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	77.1	77.1	< 0.005	< 0.005	0.00	77.3
Total	2.57	2.50	0.97	2.62	< 0.005	0.07	0.00	0.07	0.06	0.00	0.06	71.2	1,578	1,649	7.42	0.09	0.20	1,863
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.43	0.42	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.22
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	240	240	0.04	< 0.005	—	242
Water	—	—	—	—	—	—	—	—	—	—	—	4.87	7.58	12.4	0.50	0.01	—	28.6
Waste	—	—	—	—	—	—	—	—	—	—	—	6.92	0.00	6.92	0.69	0.00	—	24.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Stationary	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.47	0.46	0.18	0.48	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	11.8	261	273	1.23	0.02	0.03	308

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.67	2.62	0.03	3.63	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	15.0
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.73	2.65	0.56	4.07	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	71.2	1,508	1,579	7.42	0.09	0.20	1,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.02	2.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.08	2.05	0.53	0.45	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	71.2	1,493	1,564	7.42	0.09	0.20	1,778
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.34	2.32	0.02	1.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.36	7.36	< 0.005	< 0.005	—	7.38
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20

Stationary	0.17	0.15	0.42	0.38	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	77.1	77.1	< 0.005	< 0.005	0.00	77.3
Total	2.57	2.50	0.97	2.62	< 0.005	0.07	0.00	0.07	0.06	0.00	0.06	71.2	1,578	1,649	7.42	0.09	0.20	1,863
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.43	0.42	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.22
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	240	240	0.04	< 0.005	—	242
Water	—	—	—	—	—	—	—	—	—	—	—	4.87	7.58	12.4	0.50	0.01	—	28.6
Waste	—	—	—	—	—	—	—	—	—	—	—	6.92	0.00	6.92	0.69	0.00	—	24.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Stationary	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.47	0.46	0.18	0.48	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	11.8	261	273	1.23	0.02	0.03	308

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.13	1.04	< 0.005	0.05	—	0.05	0.04	—	0.04	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.57
Vendor	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	0.00
Hauling	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
Vendor	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	0.00
Hauling	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	0.00

3.2. Demolition (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.41	11.9	18.2	0.03	0.20	—	0.20	0.19	—	0.19	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	1.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2

Demolitio	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.57
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
Vendor	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	0.00
Hauling	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	0.00

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.6	72.6	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	136	136	< 0.005	0.01	0.01	138
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.89	1.89	< 0.005	< 0.005	< 0.005	1.92
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Vendor	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	0.00
Hauling	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	0.00

3.4. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316

Dust From Material Movemen	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.20	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.6	72.6	< 0.005	< 0.005	—	72.8
Dust From Material Movemen	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movemen	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	136	136	< 0.005	0.01	0.01	138
Vendor	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	0.00
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.89	1.89	< 0.005	< 0.005	< 0.005	1.92
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Vendor	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	0.00
Hauling	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	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.96	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.33	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.9	64.9	< 0.005	< 0.005	—	65.1

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
Vendor	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	0.00
Hauling	0.22	0.05	2.84	1.34	0.01	0.03	0.58	0.61	0.03	0.16	0.19	—	2,194	2,194	0.17	0.35	0.12	2,304
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.63
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	0.04	50.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.43
Vendor	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	0.00

Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.96	7.96	< 0.005	< 0.005	0.01	8.37

3.6. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.39	10.3	17.8	0.03	0.08	—	0.08	0.08	—	0.08	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.23	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	64.9	64.9	< 0.005	< 0.005	—	65.1
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
Vendor	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	0.00
Hauling	0.22	0.05	2.84	1.34	0.01	0.03	0.58	0.61	0.03	0.16	0.19	—	2,194	2,194	0.17	0.35	0.12	2,304
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.63
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	0.04	50.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.43
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.96	7.96	< 0.005	< 0.005	0.01	8.37

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.66	6.09	8.02	0.01	0.23	—	0.23	0.22	—	0.22	—	1,482	1,482	0.06	0.01	—	1,488
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.11	1.46	< 0.005	0.04	—	0.04	0.04	—	0.04	—	245	245	0.01	< 0.005	—	246
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.02	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	224	224	< 0.005	0.01	0.82	228
Vendor	0.03	0.01	0.45	0.22	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	362	362	0.02	0.05	0.88	380
Hauling	0.02	< 0.005	0.28	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.47	238

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.87	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	208	208	0.01	0.01	0.02	211
Vendor	0.03	0.01	0.48	0.22	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	363	363	0.02	0.05	0.02	379
Hauling	0.02	< 0.005	0.29	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.01	237
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	130	130	< 0.005	0.01	0.22	132
Vendor	0.02	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	224	224	0.01	0.03	0.24	234
Hauling	0.01	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	140	140	0.01	0.02	0.13	147
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.5	21.5	< 0.005	< 0.005	0.04	21.8
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.1	37.1	< 0.005	0.01	0.04	38.8
Hauling	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.1	23.1	< 0.005	< 0.005	0.02	24.3

3.8. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.44	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.26	5.89	9.17	0.01	0.07	—	0.07	0.07	—	0.07	—	1,482	1,482	0.06	0.01	—	1,488
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	1.08	1.67	< 0.005	0.01	—	0.01	0.01	—	0.01	—	245	245	0.01	< 0.005	—	246
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.02	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	224	224	< 0.005	0.01	0.82	228
Vendor	0.03	0.01	0.45	0.22	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	362	362	0.02	0.05	0.88	380
Hauling	0.02	< 0.005	0.28	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.47	238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.87	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	208	208	0.01	0.01	0.02	211
Vendor	0.03	0.01	0.48	0.22	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	363	363	0.02	0.05	0.02	379
Hauling	0.02	< 0.005	0.29	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.01	237
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	130	130	< 0.005	0.01	0.22	132
Vendor	0.02	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	224	224	0.01	0.03	0.24	234

Hauling	0.01	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	140	140	0.01	0.02	0.13	147
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.5	21.5	< 0.005	< 0.005	0.04	21.8
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.1	37.1	< 0.005	0.01	0.04	38.8
Hauling	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.1	23.1	< 0.005	< 0.005	0.02	24.3

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	32.8	32.8	< 0.005	< 0.005	—	32.9
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.44	5.44	< 0.005	< 0.005	—	5.46
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.81	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	204	204	< 0.005	0.01	0.02	207
Vendor	0.03	0.01	0.45	0.22	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	355	355	0.02	0.05	0.02	372
Hauling	0.02	< 0.005	0.28	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	221	221	0.02	0.03	0.01	232
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.83	2.83	< 0.005	< 0.005	< 0.005	2.87
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.86	4.86	< 0.005	< 0.005	< 0.005	5.09
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.03	3.03	< 0.005	< 0.005	< 0.005	3.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.47
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.81	0.81	< 0.005	< 0.005	< 0.005	0.84
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.53

3.10. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.43	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.13	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	32.8	32.8	< 0.005	< 0.005	—	32.9
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.44	5.44	< 0.005	< 0.005	—	5.46
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.81	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	204	204	< 0.005	0.01	0.02	207
Vendor	0.03	0.01	0.45	0.22	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	355	355	0.02	0.05	0.02	372
Hauling	0.02	< 0.005	0.28	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	221	221	0.02	0.03	0.01	232
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.83	2.83	< 0.005	< 0.005	< 0.005	2.87
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.86	4.86	< 0.005	< 0.005	< 0.005	5.09
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.03	3.03	< 0.005	< 0.005	< 0.005	3.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.47

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.81	0.81	< 0.005	< 0.005	< 0.005	0.84
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.53

3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.66	6.09	8.83	0.01	0.24	—	0.24	0.22	—	0.22	—	1,350	1,350	0.05	0.01	—	1,355
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.61	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	153	153	< 0.005	0.01	0.01	155
Vendor	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	0.00
Hauling	0.01	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	137	137	0.01	0.02	0.01	144
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.63	7.63	< 0.005	< 0.005	0.01	7.74
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.77	6.77	< 0.005	< 0.005	0.01	7.10
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.12	1.12	< 0.005	< 0.005	< 0.005	1.18

3.12. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29	0.27	6.56	9.35	0.01	0.09	—	0.09	0.09	—	0.09	—	1,350	1,350	0.05	0.01	—	1,355
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.32	0.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.61	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	153	153	< 0.005	0.01	0.01	155
Vendor	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	0.00
Hauling	0.01	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	137	137	0.01	0.02	0.01	144
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.63	7.63	< 0.005	< 0.005	0.01	7.74
Vendor	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	0.00

Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.77	6.77	< 0.005	< 0.005	0.01	7.10
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.12	1.12	< 0.005	< 0.005	< 0.005	1.18

3.13. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	48.3	48.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	2.38	2.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	0.44	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.8	40.8	< 0.005	< 0.005	< 0.005	41.4
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.04	2.04	< 0.005	< 0.005	< 0.005	2.06
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.34
Vendor	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	0.00
Hauling	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	0.00

3.14. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	48.3	48.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	2.38	2.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	0.44	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.8	40.8	< 0.005	< 0.005	< 0.005	41.4
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.04	2.04	< 0.005	< 0.005	< 0.005	2.06
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.34
Vendor	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	0.00
Hauling	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	0.00

3.15. Trenching (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.20	1.86	2.93	< 0.005	0.06	—	0.06	0.05	—	0.05	—	432	432	0.02	< 0.005	—	433

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.47	9.47	< 0.005	< 0.005	—	9.50
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.57	1.57	< 0.005	< 0.005	—	1.57
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.9	38.9	< 0.005	< 0.005	< 0.005	39.5
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.14
Vendor	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	0.00
Hauling	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	0.00

3.16. Trenching (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.20	1.86	2.93	< 0.005	0.06	—	0.06	0.05	—	0.05	—	432	432	0.02	< 0.005	—	433
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.47	9.47	< 0.005	< 0.005	—	9.50
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.57	1.57	< 0.005	< 0.005	—	1.57
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.9	38.9	< 0.005	< 0.005	< 0.005	39.5
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.14
Vendor	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	0.00
Hauling	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	0.00

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/6/2026	5.00	5.00	—
Grading	Grading	2/7/2026	2/18/2026	5.00	8.00	—
Building Construction	Building Construction	2/19/2026	1/7/2027	5.00	230	—
Paving	Paving	1/8/2027	2/2/2027	5.00	18.0	—
Architectural Coating	Architectural Coating	2/3/2027	2/28/2027	5.00	18.0	—
Trenching	Trenching	2/7/2026	2/18/2026	5.00	8.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Excavators	Diesel	Average	1.00	8.00	36.0	0.38

Trenching	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Interim	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	6.00	36.0	0.38

Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48
Trenching	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	31.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	26.7	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	13.7	8.40	HHDT,MHDT
Building Construction	Hauling	3.22	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	2.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.34	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	31.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	26.7	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	13.7	8.40	HHDT,MHDT
Building Construction	Hauling	3.22	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	2.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.34	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	125,100	41,700	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	0.00	—
Site Preparation	—	—	7.50	0.00	—
Grading	—	2,000	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	809	0.03	< 0.005
2027	0.00	809	0.03	< 0.005

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.6	annual days of extreme heat
Extreme Precipitation	2.55	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	1	1	2
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	34.6
AQ-DPM	90.0
Drinking Water	22.7
Lead Risk Housing	44.6
Pesticides	11.9
Toxic Releases	34.1
Traffic	76.0
Effect Indicators	—
CleanUp Sites	94.5
Groundwater	99.3
Haz Waste Facilities/Generators	96.7
Impaired Water Bodies	43.8
Solid Waste	0.00
Sensitive Population	—
Asthma	49.9

Cardio-vascular	36.5
Low Birth Weights	54.6
Socioeconomic Factor Indicators	—
Education	46.8
Housing	11.6
Linguistic	21.4
Poverty	43.7
Unemployment	51.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	55.19055563
Employed	58.62953933
Median HI	81.39355832
Education	—
Bachelor's or higher	73.95098165
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	47.37585012
Active commuting	90.4914667
Social	—
2-parent households	11.45900167
Voting	75.23418452
Neighborhood	—

Alcohol availability	18.09316053
Park access	81.35506224
Retail density	91.00474785
Supermarket access	81.04709355
Tree canopy	65.73848325
Housing	—
Homeownership	37.76466059
Housing habitability	66.9190299
Low-inc homeowner severe housing cost burden	86.48787373
Low-inc renter severe housing cost burden	61.86321057
Uncrowded housing	85.268831
Health Outcomes	—
Insured adults	60.5800077
Arthritis	94.2
Asthma ER Admissions	43.5
High Blood Pressure	93.3
Cancer (excluding skin)	80.0
Asthma	61.7
Coronary Heart Disease	91.8
Chronic Obstructive Pulmonary Disease	88.0
Diagnosed Diabetes	89.0
Life Expectancy at Birth	93.2
Cognitively Disabled	25.4
Physically Disabled	86.7
Heart Attack ER Admissions	64.5
Mental Health Not Good	62.3
Chronic Kidney Disease	90.3

Obesity	55.2
Pedestrian Injuries	58.7
Physical Health Not Good	77.4
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	13.6
Current Smoker	63.1
No Leisure Time for Physical Activity	76.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	88.7
Elderly	98.6
English Speaking	91.1
Foreign-born	40.7
Outdoor Workers	37.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	10.3
Traffic Density	68.6
Traffic Access	87.4
Other Indices	—
Hardship	28.6
Other Decision Support	—
2016 Voting	71.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract

CalEnviroScreen 4.0 Score for Project Location (a)	51.0
Healthy Places Index Score for Project Location (b)	78.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	2021 San Jose Clean Energy CO2 Intensity for GreenValue Plan (highest CO2 intensity of all plans)
Land Use	Acreage and square footage provided by applicant. General office building matches a potential land use after buildout is complete. Assumption of general office building land use is intended to provide conservative construction emissions analysis.
Construction: Trips and VMT	Haul trips for building construction estimated. 83,400-sf = 741 haul trips. 741 trips / 230 days = 3.22 trips/day. Paving trips (16,166sf = 36 trips. 108 tips / 18 days = 2 trips/day).
Operations: Water and Waste Water	Construction and generator emissions only.
Construction: Off-Road Equipment	Added trenching equipment.

23-103 Guadalupe Gardens Construction Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	23-103 Guadalupe Gardens Construction
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	31.0
Location	37.34539891107613, -121.91418467644203
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1800
EDFZ	1
Electric Utility	San Jose Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.25

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

General Office Building	83.4	1000sqft	3.19	83,400	0.00	—	—	—
Parking Lot	16.2	1000sqft	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.37	1.15	10.1	13.4	0.02	0.38	0.03	0.41	0.35	0.01	0.36	—	2,492	2,492	0.11	0.03	0.20	2,505
Mit.	0.53	0.50	9.78	15.2	0.02	0.12	0.03	0.15	0.11	0.01	0.12	—	2,492	2,492	0.11	0.03	0.20	2,505
% Reduced	62%	57%	3%	-14%	—	68%	—	63%	68%	—	66%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	48.5	48.5	29.2	29.0	0.05	1.24	7.68	8.92	1.14	3.94	5.09	—	5,312	5,312	0.22	0.06	0.01	5,331
Mit.	48.4	48.4	14.7	28.5	0.05	0.20	7.68	7.78	0.19	3.94	4.04	—	5,312	5,312	0.22	0.06	0.01	5,331
% Reduced	< 0.5%	< 0.5%	49%	2%	—	84%	—	13%	83%	—	21%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.45	2.44	8.16	10.2	0.02	0.31	0.19	0.50	0.29	0.09	0.38	—	1,880	1,880	0.08	0.02	0.06	1,889
Mit.	2.41	2.41	7.18	11.3	0.02	0.09	0.19	0.28	0.08	0.09	0.17	—	1,880	1,880	0.08	0.02	0.06	1,889
% Reduced	2%	1%	12%	-11%	—	71%	—	45%	71%	—	54%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	0.45	1.49	1.86	< 0.005	0.06	0.03	0.09	0.05	0.02	0.07	—	311	311	0.01	< 0.005	0.01	313
Mit.	0.44	0.44	1.31	2.06	< 0.005	0.02	0.03	0.05	0.02	0.02	0.03	—	311	311	0.01	< 0.005	0.01	313
% Reduced	2%	1%	12%	-11%	—	71%	—	45%	71%	—	54%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.37	1.15	10.1	13.4	0.02	0.38	0.03	0.41	0.35	0.01	0.36	—	2,492	2,492	0.11	0.03	0.20	2,505
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.79	3.19	29.2	29.0	0.05	1.24	7.68	8.92	1.14	3.94	5.09	—	5,312	5,312	0.22	0.06	0.01	5,331
2027	48.5	48.5	9.65	13.4	0.02	0.34	0.03	0.37	0.31	0.01	0.32	—	2,489	2,489	0.11	0.03	< 0.005	2,502
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.10	0.92	8.16	10.2	0.02	0.31	0.19	0.50	0.29	0.09	0.38	—	1,880	1,880	0.08	0.02	0.06	1,889
2027	2.45	2.44	0.48	0.69	< 0.005	0.02	< 0.005	0.02	0.02	< 0.005	0.02	—	109	109	< 0.005	< 0.005	< 0.005	109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.20	0.17	1.49	1.86	< 0.005	0.06	0.03	0.09	0.05	0.02	0.07	—	311	311	0.01	< 0.005	0.01	313
2027	0.45	0.45	0.09	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	< 0.005	18.1

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.53	0.50	9.78	15.2	0.02	0.12	0.03	0.15	0.11	0.01	0.12	—	2,492	2,492	0.11	0.03	0.20	2,505
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.73	0.69	14.7	28.5	0.05	0.20	7.68	7.78	0.19	3.94	4.04	—	5,312	5,312	0.22	0.06	0.01	5,331
2027	48.4	48.4	9.78	15.3	0.02	0.12	0.03	0.15	0.11	0.01	0.12	—	2,489	2,489	0.11	0.03	< 0.005	2,502
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.37	0.35	7.18	11.3	0.02	0.09	0.19	0.28	0.08	0.09	0.17	—	1,880	1,880	0.08	0.02	0.06	1,889
2027	2.41	2.41	0.51	0.73	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	109	109	< 0.005	< 0.005	< 0.005	109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.06	1.31	2.06	< 0.005	0.02	0.03	0.05	0.02	0.02	0.03	—	311	311	0.01	< 0.005	0.01	313
2027	0.44	0.44	0.09	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	< 0.005	18.1

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.73	2.65	0.56	4.07	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	71.2	1,508	1,579	7.42	0.09	0.20	1,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.08	2.05	0.53	0.45	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	71.2	1,493	1,564	7.42	0.09	0.20	1,778
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.57	2.50	0.97	2.62	< 0.005	0.07	0.00	0.07	0.06	0.00	0.06	71.2	1,578	1,649	7.42	0.09	0.20	1,863
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	0.46	0.18	0.48	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	11.8	261	273	1.23	0.02	0.03	308

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.67	2.62	0.03	3.63	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	15.0
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.73	2.65	0.56	4.07	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	71.2	1,508	1,579	7.42	0.09	0.20	1,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.02	2.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.08	2.05	0.53	0.45	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	71.2	1,493	1,564	7.42	0.09	0.20	1,778
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.34	2.32	0.02	1.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.36	7.36	< 0.005	< 0.005	—	7.38
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	0.17	0.15	0.42	0.38	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	77.1	77.1	< 0.005	< 0.005	0.00	77.3
Total	2.57	2.50	0.97	2.62	< 0.005	0.07	0.00	0.07	0.06	0.00	0.06	71.2	1,578	1,649	7.42	0.09	0.20	1,863
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.43	0.42	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.22
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	240	240	0.04	< 0.005	—	242
Water	—	—	—	—	—	—	—	—	—	—	—	4.87	7.58	12.4	0.50	0.01	—	28.6
Waste	—	—	—	—	—	—	—	—	—	—	—	6.92	0.00	6.92	0.69	0.00	—	24.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Stationary	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.47	0.46	0.18	0.48	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	11.8	261	273	1.23	0.02	0.03	308

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.67	2.62	0.03	3.63	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	15.0
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.73	2.65	0.56	4.07	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	71.2	1,508	1,579	7.42	0.09	0.20	1,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.02	2.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Stationary	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	0.00	0.00
Total	2.08	2.05	0.53	0.45	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	71.2	1,493	1,564	7.42	0.09	0.20	1,778
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.34	2.32	0.02	1.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.36	7.36	< 0.005	< 0.005	—	7.38
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,447	1,447	0.22	0.02	—	1,459
Water	—	—	—	—	—	—	—	—	—	—	—	29.4	45.8	75.2	3.03	0.07	—	173
Waste	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.18	0.00	—	146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20

Stationary	0.17	0.15	0.42	0.38	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	77.1	77.1	< 0.005	< 0.005	0.00	77.3
Total	2.57	2.50	0.97	2.62	< 0.005	0.07	0.00	0.07	0.06	0.00	0.06	71.2	1,578	1,649	7.42	0.09	0.20	1,863
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.43	0.42	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.22
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	240	240	0.04	< 0.005	—	242
Water	—	—	—	—	—	—	—	—	—	—	—	4.87	7.58	12.4	0.50	0.01	—	28.6
Waste	—	—	—	—	—	—	—	—	—	—	—	6.92	0.00	6.92	0.69	0.00	—	24.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Stationary	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.47	0.46	0.18	0.48	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	11.8	261	273	1.23	0.02	0.03	308

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.13	1.04	< 0.005	0.05	—	0.05	0.04	—	0.04	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.17	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	< 0.005	12.9
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.71
Vendor	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	0.00
Hauling	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
Vendor	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	0.00
Hauling	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	0.00

3.2. Demolition (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.41	11.9	18.2	0.03	0.20	—	0.20	0.19	—	0.19	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	1.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2

Demolitio	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.17	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	< 0.005	12.9
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.71
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
Vendor	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	0.00
Hauling	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	0.00

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.6	72.6	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.02	0.20	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.4	14.4	< 0.005	< 0.005	< 0.005	15.1
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	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	0.00
Hauling	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	0.00

3.4. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316

Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.20	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.6	72.6	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.02	0.20	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.4	14.4	< 0.005	< 0.005	< 0.005	15.1
Vendor	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	0.00
Hauling	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	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	0.00
Hauling	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	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.96	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.33	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.9	64.9	< 0.005	< 0.005	—	65.1

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.17	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	< 0.005	12.9
Vendor	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	0.00
Hauling	0.05	0.02	0.58	0.38	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	159	159	0.03	0.03	0.01	167
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.47	3.47	< 0.005	< 0.005	< 0.005	3.66
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.58	0.58	< 0.005	< 0.005	< 0.005	0.61

3.6. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.39	10.3	17.8	0.03	0.08	—	0.08	0.08	—	0.08	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.23	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	64.9	64.9	< 0.005	< 0.005	—	65.1
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.17	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	< 0.005	12.9
Vendor	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	0.00
Hauling	0.05	0.02	0.58	0.38	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	159	159	0.03	0.03	0.01	167
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.47	3.47	< 0.005	< 0.005	< 0.005	3.66
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.58	0.58	< 0.005	< 0.005	< 0.005	0.61

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.66	6.09	8.02	0.01	0.23	—	0.23	0.22	—	0.22	—	1,482	1,482	0.06	0.01	—	1,488
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.11	1.46	< 0.005	0.04	—	0.04	0.04	—	0.04	—	245	245	0.01	< 0.005	—	246
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.24	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	23.3	23.3	< 0.005	< 0.005	0.07	24.1
Vendor	0.01	0.01	0.17	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	55.6	55.6	0.01	0.01	0.11	58.4
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.3	16.3	< 0.005	< 0.005	0.02	17.2

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.31	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.0	22.0	0.01	< 0.005	< 0.005	23.0
Vendor	0.01	0.01	0.18	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	55.8	55.8	0.01	0.01	< 0.005	58.5
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	< 0.005	17.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.17	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.7	13.7	< 0.005	< 0.005	0.02	14.2
Vendor	0.01	< 0.005	0.11	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	0.01	0.03	36.1
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.27	2.27	< 0.005	< 0.005	< 0.005	2.35
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.70	5.70	< 0.005	< 0.005	< 0.005	5.98
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.67	1.67	< 0.005	< 0.005	< 0.005	1.76

3.8. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.44	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.26	5.89	9.17	0.01	0.07	—	0.07	0.07	—	0.07	—	1,482	1,482	0.06	0.01	—	1,488
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	1.08	1.67	< 0.005	0.01	—	0.01	0.01	—	0.01	—	245	245	0.01	< 0.005	—	246
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.24	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	23.3	23.3	< 0.005	< 0.005	0.07	24.1
Vendor	0.01	0.01	0.17	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	55.6	55.6	0.01	0.01	0.11	58.4
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.3	16.3	< 0.005	< 0.005	0.02	17.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.31	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.0	22.0	0.01	< 0.005	< 0.005	23.0
Vendor	0.01	0.01	0.18	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	55.8	55.8	0.01	0.01	< 0.005	58.5
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	< 0.005	17.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.17	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.7	13.7	< 0.005	< 0.005	0.02	14.2
Vendor	0.01	< 0.005	0.11	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	0.01	0.03	36.1

Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.27	2.27	< 0.005	< 0.005	< 0.005	2.35
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.70	5.70	< 0.005	< 0.005	< 0.005	5.98
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.67	1.67	< 0.005	< 0.005	< 0.005	1.76

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	32.8	32.8	< 0.005	< 0.005	—	32.9
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.44	5.44	< 0.005	< 0.005	—	5.46
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.29	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.6	21.6	< 0.005	< 0.005	< 0.005	22.4
Vendor	0.01	0.01	0.17	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	54.8	54.8	0.01	0.01	< 0.005	57.5
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.1	16.1	< 0.005	< 0.005	< 0.005	16.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.30	0.30	< 0.005	< 0.005	< 0.005	0.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.79
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04

3.10. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.43	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.13	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	32.8	32.8	< 0.005	< 0.005	—	32.9
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.44	5.44	< 0.005	< 0.005	—	5.46
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.29	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.6	21.6	< 0.005	< 0.005	< 0.005	22.4
Vendor	0.01	0.01	0.17	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	54.8	54.8	0.01	0.01	< 0.005	57.5
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.1	16.1	< 0.005	< 0.005	< 0.005	16.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.30	0.30	< 0.005	< 0.005	< 0.005	0.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.79
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04

3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.66	6.09	8.83	0.01	0.24	—	0.24	0.22	—	0.22	—	1,350	1,350	0.05	0.01	—	1,355
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.02	0.22	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	< 0.005	16.8
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.97	9.97	< 0.005	< 0.005	< 0.005	10.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.83
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.52
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.14
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09

3.12. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29	0.27	6.56	9.35	0.01	0.09	—	0.09	0.09	—	0.09	—	1,350	1,350	0.05	0.01	—	1,355
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.32	0.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.02	0.22	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	< 0.005	16.8
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.97	9.97	< 0.005	< 0.005	< 0.005	10.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.83
Vendor	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	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.52
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.14
Vendor	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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09

3.13. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	48.3	48.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	2.38	2.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	0.44	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.32	4.32	< 0.005	< 0.005	< 0.005	4.48
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00
Hauling	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	0.00

3.14. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	48.3	48.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	2.38	2.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	0.44	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.32	4.32	< 0.005	< 0.005	< 0.005	4.48
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	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	0.00
Hauling	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	0.00

3.15. Trenching (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.20	1.86	2.93	< 0.005	0.06	—	0.06	0.05	—	0.05	—	432	432	0.02	< 0.005	—	433

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.47	9.47	< 0.005	< 0.005	—	9.50
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.57	1.57	< 0.005	< 0.005	—	1.57
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.12	4.12	< 0.005	< 0.005	< 0.005	4.31
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Vendor	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	0.00
Hauling	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	0.00

3.16. Trenching (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.20	1.86	2.93	< 0.005	0.06	—	0.06	0.05	—	0.05	—	432	432	0.02	< 0.005	—	433
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.47	9.47	< 0.005	< 0.005	—	9.50
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.57	1.57	< 0.005	< 0.005	—	1.57
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.12	4.12	< 0.005	< 0.005	< 0.005	4.31
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	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	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	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	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	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	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	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	0.00	0.00

Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.03	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/6/2026	5.00	5.00	—
Grading	Grading	2/7/2026	2/18/2026	5.00	8.00	—
Building Construction	Building Construction	2/19/2026	1/7/2027	5.00	230	—
Paving	Paving	1/8/2027	2/2/2027	5.00	18.0	—
Architectural Coating	Architectural Coating	2/3/2027	2/28/2027	5.00	18.0	—
Trenching	Trenching	2/7/2026	2/18/2026	5.00	8.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38

Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40

Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Interim	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48
Trenching	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	0.00	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	31.3	1.00	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	26.7	1.00	LDA,LDT1,LDT2
Building Construction	Vendor	13.7	1.00	HHDT,MHDT
Building Construction	Hauling	3.22	1.00	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	1.00	LDA,LDT1,LDT2
Paving	Vendor	—	1.00	HHDT,MHDT
Paving	Hauling	2.00	1.00	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.34	1.00	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	1.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	1.00	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	1.00	LDA,LDT1,LDT2
Trenching	Vendor	—	1.00	HHDT,MHDT
Trenching	Hauling	0.00	1.00	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	0.00	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	31.3	1.00	HHDT

Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	26.7	1.00	LDA,LDT1,LDT2
Building Construction	Vendor	13.7	1.00	HHDT,MHDT
Building Construction	Hauling	3.22	1.00	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	1.00	LDA,LDT1,LDT2
Paving	Vendor	—	1.00	HHDT,MHDT
Paving	Hauling	2.00	1.00	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.34	1.00	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	1.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	1.00	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	1.00	LDA,LDT1,LDT2
Trenching	Vendor	—	1.00	HHDT,MHDT
Trenching	Hauling	0.00	1.00	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%

Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	125,100	41,700	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	0.00	—
Site Preparation	—	—	7.50	0.00	—
Grading	—	2,000	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	809	0.03	< 0.005
2027	0.00	809	0.03	< 0.005

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	0.00	50.0	670	0.73

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.6	annual days of extreme heat
Extreme Precipitation	2.55	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	1	1	2
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	34.6
AQ-DPM	90.0
Drinking Water	22.7
Lead Risk Housing	44.6
Pesticides	11.9
Toxic Releases	34.1
Traffic	76.0
Effect Indicators	—
CleanUp Sites	94.5
Groundwater	99.3
Haz Waste Facilities/Generators	96.7
Impaired Water Bodies	43.8
Solid Waste	0.00
Sensitive Population	—
Asthma	49.9

Cardio-vascular	36.5
Low Birth Weights	54.6
Socioeconomic Factor Indicators	—
Education	46.8
Housing	11.6
Linguistic	21.4
Poverty	43.7
Unemployment	51.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	55.19055563
Employed	58.62953933
Median HI	81.39355832
Education	—
Bachelor's or higher	73.95098165
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	47.37585012
Active commuting	90.4914667
Social	—
2-parent households	11.45900167
Voting	75.23418452
Neighborhood	—

Alcohol availability	18.09316053
Park access	81.35506224
Retail density	91.00474785
Supermarket access	81.04709355
Tree canopy	65.73848325
Housing	—
Homeownership	37.76466059
Housing habitability	66.9190299
Low-inc homeowner severe housing cost burden	86.48787373
Low-inc renter severe housing cost burden	61.86321057
Uncrowded housing	85.268831
Health Outcomes	—
Insured adults	60.5800077
Arthritis	94.2
Asthma ER Admissions	43.5
High Blood Pressure	93.3
Cancer (excluding skin)	80.0
Asthma	61.7
Coronary Heart Disease	91.8
Chronic Obstructive Pulmonary Disease	88.0
Diagnosed Diabetes	89.0
Life Expectancy at Birth	93.2
Cognitively Disabled	25.4
Physically Disabled	86.7
Heart Attack ER Admissions	64.5
Mental Health Not Good	62.3
Chronic Kidney Disease	90.3

Obesity	55.2
Pedestrian Injuries	58.7
Physical Health Not Good	77.4
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	13.6
Current Smoker	63.1
No Leisure Time for Physical Activity	76.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	88.7
Elderly	98.6
English Speaking	91.1
Foreign-born	40.7
Outdoor Workers	37.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	10.3
Traffic Density	68.6
Traffic Access	87.4
Other Indices	—
Hardship	28.6
Other Decision Support	—
2016 Voting	71.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract

CalEnviroScreen 4.0 Score for Project Location (a)	51.0
Healthy Places Index Score for Project Location (b)	78.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	2021 San Jose Clean Energy CO2 Intensity for GreenValue Plan (highest CO2 intensity of all plans)
Land Use	Acreage and square footage provided by applicant. General office building matches a potential land use after buildout is complete. Assumption of general office building land use is intended to provide conservative construction emissions analysis.
Construction: Trips and VMT	Haul trips for building construction estimated. 83,400-sf = 741 haul trips. 741 trips / 230 days = 3.22 trips/day. Paving trips (16,166sf = 36 trips. 108 tips / 18 days = 2 trips/day). One mile trips for HRA.
Operations: Water and Waste Water	Construction and generator emissions only.
Construction: Off-Road Equipment	Added trenching equipment.

Attachment 4: Health Risk Modeling Information and Calculations

Guadalupe Gardens, San Jose, 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	(-)	($\mu g/m^3$)
2026	0.0263	0.0084	4.68	0.08	0.01	0.03
2027	0.0015	0.0000	0.24	0.00	0.00	0.00
Total	-	-	**4.92**	**0.08**		-
Maximum	0.0263	0.0084	**-**	**-**	**0.01**	**0.03**

Guadalupe Gardens Site 1, San Jose, CA

DPM Emissions and Modeling Emission Rates - Unmitigatec

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2026	Construction	0.0572	CON_DPM	114.4	0.03481	4.39E-03	14,966	2.93E-07
2027	Construction	0.0032	CON_DPM	6.4	0.00194	2.45E-04	14,966	1.64E-08
Total		***0.0604***		***120.7***	***0.0368***	***0.0046***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Guadalupe Gardens Site 1, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigatec

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2026	Construction	CON_FUG	0.0162	32.4	0.00987	1.24E-03	14,966	8.31E-08
2027	Construction	CON_FUG	0.0001	0.1	0.00004	4.42E-06	14,966	2.95E-10
Total			***0.0163***	***32.5***	***0.0099***	***0.0012***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Guadalupe Gardens Site 2, San Jose, CA

DPM Emissions and Modeling Emission Rates - Unmitigated

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	0.0572	CON_DPM	114.4	0.03481	4.39E-03	14,648	2.99E-07
2027	Construction	0.0032	CON_DPM	6.4	0.00194	2.45E-04	14,648	1.67E-08
Total		***0.0604***		***120.7***	***0.0368***	***0.0046***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Guadalupe Gardens Site 2, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

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	0.0162	32.4	0.00987	1.24E-03	14,648	8.49E-08
2027	Construction	CON_FUG	0.0001	0.1	0.00004	4.42E-06	14,648	3.02E-10
Total			***0.0163***	***32.5***	***0.0099***	***0.0012***		

Construction Hours

hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Guadalupe Gardens Site 5, San Jose, CA

DPM Emissions and Modeling Emission Rates - Unmitigatec

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2026	Construction	0.0572	CON_DPM	114.4	0.03481	4.39E-03	17,199	2.55E-07
2027	Construction	0.0032	CON_DPM	6.4	0.00194	2.45E-04	17,199	1.42E-08
Total		***0.0604***		***120.7***	***0.0368***	***0.0046***		

Construction Hours		
hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Guadalupe Gardens Site 5, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigatec

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2026	Construction	CON_FUG	0.0162	32.4	0.00987	1.24E-03	17,199	7.23E-08
2027	Construction	CON_FUG	0.0001	0.1	0.00004	4.42E-06	17,199	2.57E-10
Total			***0.0163***	***32.5***	***0.0099***	***0.0012***		

Construction Hours		
hr/day =	9	(8am - 5pm)
days/yr =	365	
hours/year =	3285	

Guadalupe Gardens Site 1, San Jose, 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-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

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information Modeled DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)
0	0.25	-0.25 - 0*	2026	0.0098	10	0.13	2026	0.0098	-	-
1	1	0 - 1	2026	0.0098	10	1.61	2026	0.0098	1	0.03
2	1	1 - 2	2027	0.0006	10	0.09	2027	0.0006	1	0.00
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00
Total Increased Cancer Risk						**1.83**				**0.03**

* Third trimester of pregnancy

Exposure Year	Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
1	0.00	0.003	0.01
2	0.00	0.000	0.00

Guadalupe Gardens Site 2, San Jose, 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-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			Infant/Child	Adult - Exposure Information			Adult			
	Exposure				Age	Cancer	Modeled		Age	Cancer	Maximum		
Exposure	Duration		DPM Conc (ug/m3)		Sensitivity	Risk	DPM Conc (ug/m3)		Sensitivity	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*	2026	0.0089	10	0.12	2026	0.0089	-	-			
1	1	0 - 1	2026	0.0089	10	1.46	2026	0.0089	1	0.03	0.00	0.003	0.01
2	1	1 - 2	2027	0.0005	10	0.08	2027	0.0005	1	0.00	0.00	0.000	0.00
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00			
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**1.66**				**0.03**			

* Third trimester of pregnancy

Guadalupe Gardens Site 5, San Jose, 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-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

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

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information Modeled DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum Hazard Index	Maximum Fugitive PM2.5	Maximum Total PM2.5
0	0.25	-0.25 - 0*	2026	0.0076	10	0.10	2026	0.0076	-	-			
1	1	0 - 1	2026	0.0076	10	1.25	2026	0.0076	1	0.02	0.00	0.003	0.01
2	1	1 - 2	2027	0.0004	10	0.07	2027	0.0004	1	0.00	0.00	0.000	0.00
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00			
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**1.43**				**0.02**			

* Third trimester of pregnancy

Guadalupe Gardens, San Jose, CA

Standby Emergency Generator Impacts

Off-site Sensitive Receptors

MEI Location = 1.5 meter receptor height

DPM Emission Rates		
	DPM Emissions per Generator	
	Max Daily	Annual
Source Type	(lb/day)	(lb/year)
(1) 500kW Generator	0.022	8.09
CalEEMod DPM Emissions	0.0040	tons/year

Modeling Information	
Model	AERMOD
Source	Diesel Generator Engine
Source Type	Point
Meteorological Data	2013 - 2017 San Jose International Airport Meteorological Data
Point Source Stack Parameters	
Generator Engine Size (hp)	670
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)	0.000923

* AERMOD default

**BAAQMD default generator parameters

Guadalupe Gardens, San Jose, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors- 1.5m MEI Receptor Heights
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			Infant/Child				
	Exposure				Age	Cancer				
Exposure	Duration		DPM Conc (ug/m3)		Sensitivity	Risk		Hazard	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)		Index	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2026	0.0000	10	0.000				
1	1	0 - 1	2026	0.0000	10	0.000				
2	1	1 - 2	2027	0.0000	10	0.000				
3	1	2 - 3	2028	0.0009	3	0.024				
4	1	3 - 4	2029	0.0009	3	0.024		0.00019	0.0009	0.0019
5	1	4 - 5	2030	0.0009	3	0.024		0.00019	0.0009	0.0019
6	1	5 - 6	2031	0.0009	3	0.024		0.00019	0.0009	0.0019
7	1	6 - 7	2032	0.0009	3	0.024		0.00019	0.0009	0.0019
8	1	7 - 8	2033	0.0009	3	0.024		0.00019	0.0009	0.0019
9	1	8 - 9	2034	0.0009	3	0.024		0.00019	0.0009	0.0019
10	1	9 - 10	2035	0.0009	3	0.024		0.00019	0.0009	0.0019
11	1	10 - 11	2036	0.0009	3	0.024		0.00019	0.0009	0.0019
12	1	11 - 12	2037	0.0009	3	0.024		0.00019	0.0009	0.0019
13	1	12 - 13	2038	0.0009	3	0.024		0.00019	0.0009	0.0019
14	1	13 - 14	2039	0.0009	3	0.024		0.00019	0.0009	0.0019
15	1	14 - 15	2040	0.0009	3	0.024		0.00019	0.0009	0.0019
16	1	15 - 16	2041	0.0009	3	0.024		0.00019	0.0009	0.0019
17	1	16-17	2042	0.0009	1	0.003		0.00019	0.0009	0.0019
18	1	17-18	2043	0.0009	1	0.003		0.00019	0.0009	0.0019
19	1	18-19	2044	0.0009	1	0.003		0.00019	0.0009	0.0019
20	1	19-20	2045	0.0009	1	0.003		0.00019	0.0009	0.0019
21	1	20-21	2046	0.0009	1	0.003		0.00019	0.0009	0.0019
22	1	21-22	2047	0.0009	1	0.003		0.00019	0.0009	0.0019
23	1	22-23	2048	0.0009	1	0.003		0.00019	0.0009	0.0019
24	1	23-24	2049	0.0009	1	0.003		0.00019	0.0009	0.0019
25	1	24-25	2050	0.0009	1	0.003		0.00019	0.0009	0.0019
26	1	25-26	2051	0.0009	1	0.003		0.00019	0.0009	0.0019
27	1	26-27	2052	0.0009	1	0.003		0.00019	0.0009	0.0019
28	1	27-28	2053	0.0009	1	0.003		0.00019	0.0009	0.0019
29	1	28-29	2054	0.0009	1	0.003		0.00019	0.0009	0.0019
30	1	29-30	2055	0.0009	1	0.003		0.00019	0.0009	0.0019
Total Increased Cancer Risk						**0.38**	**Max**	**0.00019**	**0.0009**	**0.0019**

* Third trimester of pregnancy

Guadalupe Gardens, San Jose, CA - Highway 87 Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

Emission Year	2026
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions	
BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological	Concentration (µg/m3)*		
Data Years	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0000	0.0006	0.0005

Construction MEI PM2.5 Maximum Concentrations

Meteorological	PM2.5 Concentration (µg/m3)*		
Data Years	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0004	0.0004	0.0001

Guadalupe Gardens, San Jose, CA - Highway 87 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*	2026	10	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
1	1	0 - 1	2026	10	0.0000	0.0006	0.0005	0.003	0.001	0.0000	0.00
2	1	1 - 2	2027	10	0.0000	0.0006	0.0005	0.003	0.001	0.0000	0.00
3	1	2 - 3	2028	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
4	1	3 - 4	2029	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
5	1	4 - 5	2030	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
6	1	5 - 6	2031	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
7	1	6 - 7	2032	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
8	1	7 - 8	2033	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
9	1	8 - 9	2034	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
10	1	9 - 10	2035	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
11	1	10 - 11	2036	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
12	1	11 - 12	2037	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
13	1	12 - 13	2038	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
14	1	13 - 14	2039	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
15	1	14 - 15	2040	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
16	1	15 - 16	2041	3	0.0000	0.0006	0.0005	0.001	0.000	0.0000	0.00
17	1	16-17	2042	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0000	0.0006	0.0005	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.01	0.002	0.000	**0.02**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00000	0.00	0.00

Guadalupe Gardens, San Jose, CA - Highway 880 Ramps Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

Emission Year	2026
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions	
BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological	Concentration (µg/m3)*		
Data Years	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0000	0.0008	0.0011

Construction MEI PM2.5 Maximum Concentrations

Meteorological	PM2.5 Concentration (µg/m3)*		
Data Years	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0007	0.0006	0.0001

Guadalupe Gardens, San Jose, CA - Highway 880 Ramps 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)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2026	10	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
1	1	0 - 1	2026	10	0.0000	0.0008	0.0011	0.003	0.001	0.0001	0.00
2	1	1 - 2	2027	10	0.0000	0.0008	0.0011	0.003	0.001	0.0001	0.00
3	1	2 - 3	2028	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
4	1	3 - 4	2029	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
5	1	4 - 5	2030	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
6	1	5 - 6	2031	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
7	1	6 - 7	2032	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
8	1	7 - 8	2033	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
9	1	8 - 9	2034	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
10	1	9 - 10	2035	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
11	1	10 - 11	2036	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
12	1	11 - 12	2037	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
13	1	12 - 13	2038	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
14	1	13 - 14	2039	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
15	1	14 - 15	2040	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
16	1	15 - 16	2041	3	0.0000	0.0008	0.0011	0.001	0.000	0.0000	0.00
17	1	16-17	2042	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0000	0.0008	0.0011	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.01	0.003	0.000	**0.02**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00000	0.00	0.00

Guadalupe Gardens, San Jose, CA - Coleman Avenue Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

Emission Year	2026
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions	
BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological	Concentration (µg/m3)*		
Data Years	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0050	0.2945	0.4181
2013-2017	0.0011	0.0668	0.1051

Construction MEI PM2.5 Maximum Concentrations

Meteorological	PM2.5 Concentration (µg/m3)*		
Data Years	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.3638	0.3433	0.0205

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

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

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

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2026	10	0.0050	0.2945	0.4181	0.068	0.023	0.0019	0.09
1	1	0 - 1	2026	10	0.0050	0.2945	0.4181	0.818	0.276	0.0231	1.12
2	1	1 - 2	2027	10	0.0050	0.2945	0.4181	0.818	0.276	0.0231	1.12
3	1	2 - 3	2028	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
4	1	3 - 4	2029	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
5	1	4 - 5	2030	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
6	1	5 - 6	2031	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
7	1	6 - 7	2032	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
8	1	7 - 8	2033	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
9	1	8 - 9	2034	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
10	1	9 - 10	2035	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
11	1	10 - 11	2036	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
12	1	11 - 12	2037	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
13	1	12 - 13	2038	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
14	1	13 - 14	2039	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
15	1	14 - 15	2040	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
16	1	15 - 16	2041	3	0.0050	0.2945	0.4181	0.129	0.043	0.0036	0.18
17	1	16-17	2042	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
18	1	17-18	2043	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
19	1	18-19	2044	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
20	1	19-20	2045	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
21	1	20-21	2046	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
22	1	21-22	2047	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
23	1	22-23	2048	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
24	1	23-24	2049	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
25	1	24-25	2050	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
26	1	25-26	2051	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
27	1	26-27	2052	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
28	1	27-28	2053	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
29	1	28-29	2054	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
30	1	29-30	2055	1	0.0050	0.2945	0.4181	0.014	0.005	0.0004	0.02
Total Increased Cancer Risk								3.71	1.251	0.105	**5.06**

* Third trimester of pregnancy

Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00100	0.34	0.36

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

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

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

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2026	10	0.0011	0.0668	0.1051	0.015	0.005	0.0005	0.02
1	1	0 - 1	2026	10	0.0011	0.0668	0.1051	0.186	0.063	0.0058	0.25
2	1	1 - 2	2027	10	0.0011	0.0668	0.1051	0.186	0.063	0.0058	0.25
3	1	2 - 3	2028	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
4	1	3 - 4	2029	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
5	1	4 - 5	2030	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
6	1	5 - 6	2031	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
7	1	6 - 7	2032	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
8	1	7 - 8	2033	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
9	1	8 - 9	2034	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
10	1	9 - 10	2035	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
11	1	10 - 11	2036	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
12	1	11 - 12	2037	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
13	1	12 - 13	2038	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
14	1	13 - 14	2039	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
15	1	14 - 15	2040	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
16	1	15 - 16	2041	3	0.0011	0.0668	0.1051	0.029	0.010	0.0009	0.04
17	1	16-17	2042	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
18	1	17-18	2043	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
19	1	18-19	2044	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
20	1	19-20	2045	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
21	1	20-21	2046	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
22	1	21-22	2047	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
23	1	22-23	2048	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
24	1	23-24	2049	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
25	1	24-25	2050	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
26	1	25-26	2051	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
27	1	26-27	2052	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
28	1	27-28	2053	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
29	1	28-29	2054	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
30	1	29-30	2055	1	0.0011	0.0668	0.1051	0.003	0.001	0.0001	0.00
Total Increased Cancer Risk								0.84	0.284	0.026	**1.15**

* Third trimester of pregnancy

Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00023	0.09	0.09

Guadalupe Gardens, San Jose, CA - W Hedding St Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

<u>**Emission Year**</u>	2026
<u>**Receptor Information**</u>	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location
<u>**Meteorological Conditions**</u>	
BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0004	0.0281	0.0401
2013-2017	0.0001	0.0060	0.0095

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0348	0.0329	0.0019

Guadalupe Gardens, San Jose, CA - W Hedding St 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)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2026	10	0.0004	0.0281	0.0401	0.006	0.002	0.0002	0.01
1	1	0 - 1	2026	10	0.0004	0.0281	0.0401	0.072	0.026	0.0022	0.10
2	1	1 - 2	2027	10	0.0004	0.0281	0.0401	0.072	0.026	0.0022	0.10
3	1	2 - 3	2028	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
4	1	3 - 4	2029	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
5	1	4 - 5	2030	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
6	1	5 - 6	2031	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
7	1	6 - 7	2032	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
8	1	7 - 8	2033	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
9	1	8 - 9	2034	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
10	1	9 - 10	2035	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
11	1	10 - 11	2036	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
12	1	11 - 12	2037	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
13	1	12 - 13	2038	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
14	1	13 - 14	2039	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
15	1	14 - 15	2040	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
16	1	15 - 16	2041	3	0.0004	0.0281	0.0401	0.011	0.004	0.0003	0.02
17	1	16-17	2042	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0004	0.0281	0.0401	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.33	0.119	0.010	**0.46**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00009	0.03	0.03

Guadalupe Gardens, San Jose, CA - W Hedding St 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*	2026	10	0.0001	0.0060	0.0095	0.001	0.000	0.0000	0.00
1	1	0 - 1	2026	10	0.0001	0.0060	0.0095	0.015	0.006	0.0005	0.02
2	1	1 - 2	2027	10	0.0001	0.0060	0.0095	0.015	0.006	0.0005	0.02
3	1	2 - 3	2028	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
4	1	3 - 4	2029	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
5	1	4 - 5	2030	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
6	1	5 - 6	2031	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
7	1	6 - 7	2032	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
8	1	7 - 8	2033	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
9	1	8 - 9	2034	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
10	1	9 - 10	2035	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
11	1	10 - 11	2036	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
12	1	11 - 12	2037	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
13	1	12 - 13	2038	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
14	1	13 - 14	2039	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
15	1	14 - 15	2040	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
16	1	15 - 16	2041	3	0.0001	0.0060	0.0095	0.002	0.001	0.0001	0.00
17	1	16-17	2042	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0001	0.0060	0.0095	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.07	0.026	0.002	**0.09**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00002	0.01	0.01

Guadalupe Gardens, San Jose, CA - W Taylor St Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

Emission Year	2026
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions	
BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0004	0.0139	0.0198
2013-2017	0.0001	0.0018	0.0028

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0173	0.0163	0.0010

Guadalupe Gardens, San Jose, CA - W Taylor St 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)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2026	10	0.0004	0.0139	0.0198	0.005	0.001	0.0001	0.01
1	1	0 - 1	2026	10	0.0004	0.0139	0.0198	0.066	0.013	0.0011	0.08
2	1	1 - 2	2027	10	0.0004	0.0139	0.0198	0.066	0.013	0.0011	0.08
3	1	2 - 3	2028	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
4	1	3 - 4	2029	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
5	1	4 - 5	2030	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
6	1	5 - 6	2031	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
7	1	6 - 7	2032	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
8	1	7 - 8	2033	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
9	1	8 - 9	2034	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
10	1	9 - 10	2035	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
11	1	10 - 11	2036	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
12	1	11 - 12	2037	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
13	1	12 - 13	2038	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
14	1	13 - 14	2039	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
15	1	14 - 15	2040	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
16	1	15 - 16	2041	3	0.0004	0.0139	0.0198	0.010	0.002	0.0002	0.01
17	1	16-17	2042	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0004	0.0139	0.0198	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.30	0.059	0.005	**0.36**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00008	0.02	0.02

Guadalupe Gardens, San Jose, CA - W Taylor St 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)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2026	10	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
1	1	0 - 1	2026	10	0.0001	0.0018	0.0028	0.008	0.002	0.0002	0.01
2	1	1 - 2	2027	10	0.0001	0.0018	0.0028	0.008	0.002	0.0002	0.01
3	1	2 - 3	2028	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
4	1	3 - 4	2029	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
5	1	4 - 5	2030	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
6	1	5 - 6	2031	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
7	1	6 - 7	2032	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
8	1	7 - 8	2033	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
9	1	8 - 9	2034	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
10	1	9 - 10	2035	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
11	1	10 - 11	2036	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
12	1	11 - 12	2037	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
13	1	12 - 13	2038	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
14	1	13 - 14	2039	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
15	1	14 - 15	2040	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
16	1	15 - 16	2041	3	0.0001	0.0018	0.0028	0.001	0.000	0.0000	0.00
17	1	16-17	2042	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0001	0.0018	0.0028	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.04	0.008	0.001	**0.05**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.00	0.00

Guadalupe Gardens Site 1, San Jose, CA

DPM Emissions and Modeling Emission Rates

Operational Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
Annual	Truck Trips	0.0023	TRK_DPM	4.6	0.00053	6.63E-05	13,801	4.80E-09
Total		***0.0023***		***4.6***	***0.0005***	***0.0001***		

Construction Hours

hr/day =	24	(8am - 8am)
days/yr =	365	
hours/year =	8760	

Guadalupe Gardens Site 1, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling

Operational Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
Annual	Truck Trips	TRK_FUG	0.0007	1.4	0.00017	2.08E-05	13,801	1.51E-09
Total			***0.0007***	***1.4***	***0.0002***	***0.0000***		

Construction Hours

hr/day =	24	(8am - 8am)
days/yr =	365	
hours/year =	8760	

Guadalupe Gardens Site 2, San Jose, CA

DPM Emissions and Modeling Emission Rates - Unmitigated

Operational Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
Annual	Truck Trips	0.0023	TRK_DPM	4.6	0.00053	6.63E-05	13,971	4.74E-09
Total		***0.0023***		***4.6***	***0.0005***	***0.0001***		

Construction Hours

hr/day =	24	(8am - 8am)
days/yr =	365	
hours/year =	8760	

Guadalupe Gardens Site 2, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Operational Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
Annual	Truck Trips	TRK_FUG	0.0007	1.4	0.00017	2.08E-05	13,971	1.49E-09
Total			***0.0007***	***1.4***	***0.0002***	***0.0000***		

Construction Hours

hr/day =	24	(8am - 8am)
days/yr =	365	
hours/year =	8760	

Guadalupe Gardens Site 5, San Jose, CA

DPM Emissions and Modeling Emission Rates - Unmitigated

Operational Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
Annual	Truck Trips	0.0023	TRK_DPM	4.6	0.00053	6.63E-05	15,534	4.27E-09
Total		***0.0023***		***4.6***	***0.0005***	***0.0001***		

Construction Hours

hr/day =	24	(8am - 8am)
days/yr =	365	
hours/year =	8760	

Guadalupe Gardens Site 5, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Operational Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
Annual	Truck Trips	TRK_FUG	0.0007	1.4	0.00017	2.08E-05	15,534	1.34E-09
Total			***0.0007***	***1.4***	***0.0002***	***0.0000***		

Construction Hours

hr/day =	24	(8am - 8am)
days/yr =	365	
hours/year =	8760	

Guadalupe Gardens Site 1, San Jose, CA - Truck Trip Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations From Truck Trips
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

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information: Modeled DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)
0	0.25	-0.25 - 0*	2026	0.0000	10	0.00	2026	0.0000	-	-
1	1	0 - 1	2026	0.0000	10	0.00	2026	0.0000	1	0.00
2	1	1 - 2	2027	0.0000	10	0.00	2027	0.0000	1	0.00
3	1	2 - 3	2028	0.0012	3	0.03	2028	0.0012	1	0.00
4	1	3 - 4	2029	0.0012	3	0.03	2029	0.0012	1	0.00
5	1	4 - 5	2030	0.0012	3	0.03	2030	0.0012	1	0.00
6	1	5 - 6	2031	0.0012	3	0.03	2031	0.0012	1	0.00
7	1	6 - 7	2032	0.0012	3	0.03	2032	0.0012	1	0.00
8	1	7 - 8	2033	0.0012	3	0.03	2033	0.0012	1	0.00
9	1	8 - 9	2034	0.0012	3	0.03	2034	0.0012	1	0.00
10	1	9 - 10	2035	0.0012	3	0.03	2035	0.0012	1	0.00
11	1	10 - 11	2036	0.0012	3	0.03	2036	0.0012	1	0.00
12	1	11 - 12	2037	0.0012	3	0.03	2037	0.0012	1	0.00
13	1	12 - 13	2038	0.0012	3	0.03	2038	0.0012	1	0.00
14	1	13 - 14	2039	0.0012	3	0.03	2039	0.0012	1	0.00
15	1	14 - 15	2040	0.0012	3	0.03	2040	0.0012	1	0.00
16	1	15 - 16	2041	0.0012	3	0.03	2041	0.0012	1	0.00
17	1	16-17	2042	0.0012	1	0.00	2042	0.0012	1	0.00
18	1	17-18	2043	0.0012	1	0.00	2043	0.0012	1	0.00
19	1	18-19	2044	0.0012	1	0.00	2044	0.0012	1	0.00
20	1	19-20	2045	0.0012	1	0.00	2045	0.0012	1	0.00
21	1	20-21	2046	0.0012	1	0.00	2046	0.0012	1	0.00
22	1	21-22	2047	0.0012	1	0.00	2047	0.0012	1	0.00
23	1	22-23	2048	0.0012	1	0.00	2048	0.0012	1	0.00
24	1	23-24	2049	0.0012	1	0.00	2049	0.0012	1	0.00
25	1	24-25	2050	0.0012	1	0.00	2050	0.0012	1	0.00
26	1	25-26	2051	0.0012	1	0.00	2051	0.0012	1	0.00
27	1	26-27	2052	0.0012	1	0.00	2052	0.0012	1	0.00
28	1	27-28	2053	0.0012	1	0.00	2053	0.0012	1	0.00
29	1	28-29	2054	0.0012	1	0.00	2054	0.0012	1	0.00
30	1	29-30	2055	0.0012	1	0.00	2055	0.0012	1	0.00
Total Increased Cancer Risk						**0.49**				**0.10**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00	0.000	0.00

Guadalupe Gardens Site 2, San Jose, CA - Truck Trip Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations From Truck Trips
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			**Infant/Child**	**Adult - Exposure Information**			**Adult**
	Exposure				**Age**	**Cancer**	**Modeled**		**Age**	**Cancer**
Exposure	**Duration**		**DPM Conc (ug/m3)**		**Sensitivity**	**Risk**	**DPM Conc (ug/m3)**		**Sensitivity**	**Risk**
Year	**(years)**	**Age**	**Year**	**Annual**	**Factor**	**(per million)**	**Year**	**Annual**	**Factor**	**(per million)**
0	0.25	-0.25 - 0*	2026	0.0000	10	0.00	2026	0.0000	-	-
1	1	0 - 1	2026	0.0000	10	0.00	2026	0.0000	1	0.00
2	1	1 - 2	2027	0.0000	10	0.00	2027	0.0000	1	0.00
3	1	2 - 3	2028	0.0009	3	0.02	2028	0.0009	1	0.00
4	1	3 - 4	2029	0.0009	3	0.02	2029	0.0009	1	0.00
5	1	4 - 5	2030	0.0009	3	0.02	2030	0.0009	1	0.00
6	1	5 - 6	2031	0.0009	3	0.02	2031	0.0009	1	0.00
7	1	6 - 7	2032	0.0009	3	0.02	2032	0.0009	1	0.00
8	1	7 - 8	2033	0.0009	3	0.02	2033	0.0009	1	0.00
9	1	8 - 9	2034	0.0009	3	0.02	2034	0.0009	1	0.00
10	1	9 - 10	2035	0.0009	3	0.02	2035	0.0009	1	0.00
11	1	10 - 11	2036	0.0009	3	0.02	2036	0.0009	1	0.00
12	1	11 - 12	2037	0.0009	3	0.02	2037	0.0009	1	0.00
13	1	12 - 13	2038	0.0009	3	0.02	2038	0.0009	1	0.00
14	1	13 - 14	2039	0.0009	3	0.02	2039	0.0009	1	0.00
15	1	14 - 15	2040	0.0009	3	0.02	2040	0.0009	1	0.00
16	1	15 - 16	2041	0.0009	3	0.02	2041	0.0009	1	0.00
17	1	16-17	2042	0.0009	1	0.00	2042	0.0009	1	0.00
18	1	17-18	2043	0.0009	1	0.00	2043	0.0009	1	0.00
19	1	18-19	2044	0.0009	1	0.00	2044	0.0009	1	0.00
20	1	19-20	2045	0.0009	1	0.00	2045	0.0009	1	0.00
21	1	20-21	2046	0.0009	1	0.00	2046	0.0009	1	0.00
22	1	21-22	2047	0.0009	1	0.00	2047	0.0009	1	0.00
23	1	22-23	2048	0.0009	1	0.00	2048	0.0009	1	0.00
24	1	23-24	2049	0.0009	1	0.00	2049	0.0009	1	0.00
25	1	24-25	2050	0.0009	1	0.00	2050	0.0009	1	0.00
26	1	25-26	2051	0.0009	1	0.00	2051	0.0009	1	0.00
27	1	26-27	2052	0.0009	1	0.00	2052	0.0009	1	0.00
28	1	27-28	2053	0.0009	1	0.00	2053	0.0009	1	0.00
29	1	28-29	2054	0.0009	1	0.00	2054	0.0009	1	0.00
30	1	29-30	2055	0.0009	1	0.00	2055	0.0009	1	0.00
Total Increased Cancer Risk						**0.34**				**0.07**

* Third trimester of pregnancy

	Maximum	
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.00	0.000	0.00

Guadalupe Gardens Site 5, San Jose, CA - Truck Trip Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations From Truck Trips
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			**Infant/Child**	**Adult - Exposure Information**			**Adult**			
	Exposure				**Age**	**Cancer**	**Modeled**		**Age**	**Cancer**		**Maximum**	
Exposure	**Duration**		**DPM Conc (ug/m3)**		**Sensitivity**	**Risk**	**DPM Conc (ug/m3)**		**Sensitivity**	**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*	2026	0.0000	10	0.00	2026	0.0000	-	-			
1	1	0 - 1	2026	0.0000	10	0.00	2026	0.0000	1	0.00	0.00	0.000	0.00
2	1	1 - 2	2027	0.0000	10	0.00	2027	0.0000	1	0.00			
3	1	2 - 3	2028	0.0021	3	0.05	2028	0.0021	1	0.01			
4	1	3 - 4	2029	0.0021	3	0.05	2029	0.0021	1	0.01			
5	1	4 - 5	2030	0.0021	3	0.05	2030	0.0021	1	0.01			
6	1	5 - 6	2031	0.0021	3	0.05	2031	0.0021	1	0.01			
7	1	6 - 7	2032	0.0021	3	0.05	2032	0.0021	1	0.01			
8	1	7 - 8	2033	0.0021	3	0.05	2033	0.0021	1	0.01			
9	1	8 - 9	2034	0.0021	3	0.05	2034	0.0021	1	0.01			
10	1	9 - 10	2035	0.0021	3	0.05	2035	0.0021	1	0.01			
11	1	10 - 11	2036	0.0021	3	0.05	2036	0.0021	1	0.01			
12	1	11 - 12	2037	0.0021	3	0.05	2037	0.0021	1	0.01			
13	1	12 - 13	2038	0.0021	3	0.05	2038	0.0021	1	0.01			
14	1	13 - 14	2039	0.0021	3	0.05	2039	0.0021	1	0.01			
15	1	14 - 15	2040	0.0021	3	0.05	2040	0.0021	1	0.01			
16	1	15 - 16	2041	0.0021	3	0.05	2041	0.0021	1	0.01			
17	1	16-17	2042	0.0021	1	0.01	2042	0.0021	1	0.01			
18	1	17-18	2043	0.0021	1	0.01	2043	0.0021	1	0.01			
19	1	18-19	2044	0.0021	1	0.01	2044	0.0021	1	0.01			
20	1	19-20	2045	0.0021	1	0.01	2045	0.0021	1	0.01			
21	1	20-21	2046	0.0021	1	0.01	2046	0.0021	1	0.01			
22	1	21-22	2047	0.0021	1	0.01	2047	0.0021	1	0.01			
23	1	22-23	2048	0.0021	1	0.01	2048	0.0021	1	0.01			
24	1	23-24	2049	0.0021	1	0.01	2049	0.0021	1	0.01			
25	1	24-25	2050	0.0021	1	0.01	2050	0.0021	1	0.01			
26	1	25-26	2051	0.0021	1	0.01	2051	0.0021	1	0.01			
27	1	26-27	2052	0.0021	1	0.01	2052	0.0021	1	0.01			
28	1	27-28	2053	0.0021	1	0.01	2053	0.0021	1	0.01			
29	1	28-29	2054	0.0021	1	0.01	2054	0.0021	1	0.01			
30	1	29-30	2055	0.0021	1	0.01	2055	0.0021	1	0.01			
Total Increased Cancer Risk						**0.82**				**0.16**			

* Third trimester of pregnancy

Summary of Truck Traffic Emissions (EMFAC2021)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
						Grams								
Hauling	4878.98	115275.78	84275.143	290.803	4365.40	2089.53	6454.9	656.85	910.12	1566.98	32665935.86	4558.786	5236.813	34340476
Vendor	0.00	0.00	0.0	0.000	0.00	0.00	0.0	0.00	0.00	0.00	0	0	0	0
Worker	0.00	0.00	0.0	0.000	0.00	0.00	0.0	0.00	0.00	0.00	0	0	0	0
Total (g)	4878.98	115275.7848	84275.143	290.8029594	4365.4	2089.529894	6454.9299	656.854	910.1219194	1566.975919	32665935.86	4558.786	5236.813	34340476
Total (lbs)	10.76	254.14	185.79	0.64	9.62	4.6	14.23	1.45	2.01	3.45	72016.06116	10.0504	11.5452	75707.79
Total (tons)	0.0054	0.127	0.093	0.000	0.005	0.0023	0.0071	0.0007	0.001	0.002	36.01	0.01	0.01	37.853895
Total (MT)											32.67	0.00	0.01	34.340476

YEAR							Tons							
Annual	0.0054	0.1271	0.0929	0.0003	0.0048	0.0023	0.0071	0.0007	0.0010	0.0017	32.6659	0.004559	0.005237	34.340476

Operational Truck Trip Emissions

Phase	WORKER TRIPS	VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	HAULING TRIPS (yearly)	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class		*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Operational Truck Trips (40 per day)	0	0	0	0	14600	0	0	1	LD_Mix	HDT_Mix	HHDT		0	0	14600

Number of Days Per Year					
Annual	1/1/28	12/31/28	366	262	
			366	**262**	***Total Workdays***

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Coleman Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	43.7	3.4	35	18,273	14,597	157,126	3.454E-09	2.547E-09	6.8	3.16
DPM_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	43.7	3.4	35	18,273	14,661	157,814	3.454E-09	2.547E-09	6.8	3.16
									Total	36,545						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00035			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	727	4.81E-05	9	6.44%	1176	7.79E-05	17	5.53%	1010	6.69E-05
2	2.67%	488	3.23E-05	10	7.40%	1351	8.95E-05	18	3.14%	574	3.80E-05
3	2.84%	519	3.44E-05	11	6.32%	1154	7.64E-05	19	2.35%	429	2.84E-05
4	3.30%	602	3.99E-05	12	6.88%	1258	8.33E-05	20	0.86%	157	1.04E-05
5	2.16%	395	2.61E-05	13	6.27%	1145	7.58E-05	21	3.08%	562	3.72E-05
6	3.30%	602	3.99E-05	14	6.21%	1135	7.52E-05	22	4.21%	770	5.10E-05
7	6.03%	1102	7.30E-05	15	5.13%	938	6.21E-05	23	2.62%	479	3.17E-05
8	4.56%	834	5.52E-05	16	3.88%	709	4.70E-05	24	0.85%	156	1.03E-05
								Total		18,273	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	727	4.83E-05	9	6.44%	1176	7.83E-05	17	5.53%	1010	6.72E-05
2	2.67%	488	3.25E-05	10	7.40%	1351	8.99E-05	18	3.14%	574	3.82E-05
3	2.84%	519	3.45E-05	11	6.32%	1154	7.68E-05	19	2.35%	429	2.85E-05
4	3.30%	602	4.01E-05	12	6.88%	1258	8.37E-05	20	0.86%	157	1.05E-05
5	2.16%	395	2.62E-05	13	6.27%	1145	7.62E-05	21	3.08%	562	3.74E-05
6	3.30%	602	4.01E-05	14	6.21%	1135	7.55E-05	22	4.21%	770	5.12E-05
7	6.03%	1102	7.33E-05	15	5.13%	938	6.24E-05	23	2.62%	479	3.19E-05
8	4.56%	834	5.55E-05	16	3.88%	709	4.72E-05	24	0.85%	156	1.04E-05
								Total		18,273	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Coleman Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	18,273	14,597	157,126	1.34E-08	9.86E-09	2.6	1.21
PM2.5_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	18,273	14,661	157,814	1.34E-08	9.86E-09	2.6	1.21
									Total	36,545						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001355			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	210	5.39E-05	9	7.11%	1300	3.33E-04	17	7.38%	1349	3.46E-04
2	0.42%	77	1.97E-05	10	4.39%	802	2.06E-04	18	8.18%	1494	3.83E-04
3	0.41%	74	1.90E-05	11	4.66%	852	2.18E-04	19	5.70%	1041	2.67E-04
4	0.26%	48	1.22E-05	12	5.89%	1076	2.76E-04	20	4.27%	780	2.00E-04
5	0.50%	91	2.34E-05	13	6.15%	1124	2.88E-04	21	3.26%	595	1.53E-04
6	0.90%	165	4.24E-05	14	6.04%	1103	2.83E-04	22	3.30%	603	1.55E-04
7	3.79%	692	1.77E-04	15	7.01%	1282	3.29E-04	23	2.46%	450	1.15E-04
8	7.76%	1419	3.64E-04	16	7.14%	1304	3.34E-04	24	1.87%	341	8.75E-05
								Total		18,273	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	210	5.41E-05	9	7.11%	1300	3.35E-04	17	7.38%	1349	3.47E-04
2	0.42%	77	1.98E-05	10	4.39%	802	2.06E-04	18	8.18%	1494	3.85E-04
3	0.41%	74	1.91E-05	11	4.66%	852	2.19E-04	19	5.70%	1041	2.68E-04
4	0.26%	48	1.23E-05	12	5.89%	1076	2.77E-04	20	4.27%	780	2.01E-04
5	0.50%	91	2.35E-05	13	6.15%	1124	2.90E-04	21	3.26%	595	1.53E-04
6	0.90%	165	4.25E-05	14	6.04%	1103	2.84E-04	22	3.30%	603	1.55E-04
7	3.79%	692	1.78E-04	15	7.01%	1282	3.30E-04	23	2.46%	450	1.16E-04
8	7.76%	1419	3.65E-04	16	7.14%	1304	3.36E-04	24	1.87%	341	8.79E-05
								Total		18,273	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Coleman Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	18,273	14,597	157,126	1.93E-07	1.42E-07	2.6	1.21
TEXH_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	18,273	14,661	157,814	1.93E-07	1.42E-07	2.6	1.21
									Total	36,545						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01958			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	210	7.78E-04	9	7.11%	1300	4.81E-03	17	7.38%	1349	5.00E-03
2	0.42%	77	2.85E-04	10	4.39%	802	2.97E-03	18	8.18%	1494	5.53E-03
3	0.41%	74	2.74E-04	11	4.66%	852	3.16E-03	19	5.70%	1041	3.86E-03
4	0.26%	48	1.76E-04	12	5.89%	1076	3.99E-03	20	4.27%	780	2.89E-03
5	0.50%	91	3.37E-04	13	6.15%	1124	4.16E-03	21	3.26%	595	2.21E-03
6	0.90%	165	6.12E-04	14	6.04%	1103	4.09E-03	22	3.30%	603	2.23E-03
7	3.79%	692	2.56E-03	15	7.01%	1282	4.75E-03	23	2.46%	450	1.67E-03
8	7.76%	1419	5.25E-03	16	7.14%	1304	4.83E-03	24	1.87%	341	1.26E-03
								Total		18,273	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	210	7.81E-04	9	7.11%	1300	4.83E-03	17	7.38%	1349	5.02E-03
2	0.42%	77	2.86E-04	10	4.39%	802	2.98E-03	18	8.18%	1494	5.56E-03
3	0.41%	74	2.76E-04	11	4.66%	852	3.17E-03	19	5.70%	1041	3.87E-03
4	0.26%	48	1.77E-04	12	5.89%	1076	4.00E-03	20	4.27%	780	2.90E-03
5	0.50%	91	3.39E-04	13	6.15%	1124	4.18E-03	21	3.26%	595	2.21E-03
6	0.90%	165	6.15E-04	14	6.04%	1103	4.10E-03	22	3.30%	603	2.24E-03
7	3.79%	692	2.57E-03	15	7.01%	1282	4.77E-03	23	2.46%	450	1.67E-03
8	7.76%	1419	5.28E-03	16	7.14%	1304	4.85E-03	24	1.87%	341	1.27E-03
								Total		18,273	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Coleman Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	18,273	14,597	157,126	2.74E-07	2.02E-07	2.6	1.21
TEVAP_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	18,273	14,661	157,814	2.74E-07	2.02E-07	2.6	1.21
									Total	36,545						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.97293			
Emissions per Vehicle per Mile (g/VMT)	0.02780			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	210	1.10E-03	9	7.11%	1300	6.84E-03	17	7.38%	1349	7.10E-03
2	0.42%	77	4.04E-04	10	4.39%	802	4.22E-03	18	8.18%	1494	7.86E-03
3	0.41%	74	3.90E-04	11	4.66%	852	4.48E-03	19	5.70%	1041	5.48E-03
4	0.26%	48	2.51E-04	12	5.89%	1076	5.66E-03	20	4.27%	780	4.10E-03
5	0.50%	91	4.79E-04	13	6.15%	1124	5.91E-03	21	3.26%	595	3.13E-03
6	0.90%	165	8.69E-04	14	6.04%	1103	5.80E-03	22	3.30%	603	3.17E-03
7	3.79%	692	3.64E-03	15	7.01%	1282	6.74E-03	23	2.46%	450	2.37E-03
8	7.76%	1419	7.46E-03	16	7.14%	1304	6.86E-03	24	1.87%	341	1.79E-03
								Total		18,273	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	210	1.11E-03	9	7.11%	1300	6.87E-03	17	7.38%	1349	7.13E-03
2	0.42%	77	4.06E-04	10	4.39%	802	4.23E-03	18	8.18%	1494	7.89E-03
3	0.41%	74	3.91E-04	11	4.66%	852	4.50E-03	19	5.70%	1041	5.50E-03
4	0.26%	48	2.52E-04	12	5.89%	1076	5.68E-03	20	4.27%	780	4.12E-03
5	0.50%	91	4.81E-04	13	6.15%	1124	5.94E-03	21	3.26%	595	3.15E-03
6	0.90%	165	8.73E-04	14	6.04%	1103	5.83E-03	22	3.30%	603	3.19E-03
7	3.79%	692	3.66E-03	15	7.01%	1282	6.77E-03	23	2.46%	450	2.38E-03
8	7.76%	1419	7.49E-03	16	7.14%	1304	6.89E-03	24	1.87%	341	1.80E-03
								Total		18,273	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Coleman Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	18,273	14,597	157,126	2.25E-07	1.66E-07	2.6	1.21
FUG_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	18,273	14,661	157,814	2.25E-07	1.66E-07	2.6	1.21
									Total	36,545						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00549			
Road Dust - Emissions per Vehicle (g/VMT)	0.01525			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02284			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	210	9.08E-04	9	7.11%	1300	5.62E-03	17	7.38%	1349	5.83E-03
2	0.42%	77	3.32E-04	10	4.39%	802	3.46E-03	18	8.18%	1494	6.46E-03
3	0.41%	74	3.20E-04	11	4.66%	852	3.68E-03	19	5.70%	1041	4.50E-03
4	0.26%	48	2.06E-04	12	5.89%	1076	4.65E-03	20	4.27%	780	3.37E-03
5	0.50%	91	3.94E-04	13	6.15%	1124	4.86E-03	21	3.26%	595	2.57E-03
6	0.90%	165	7.14E-04	14	6.04%	1103	4.77E-03	22	3.30%	603	2.61E-03
7	3.79%	692	2.99E-03	15	7.01%	1282	5.54E-03	23	2.46%	450	1.94E-03
8	7.76%	1419	6.13E-03	16	7.14%	1304	5.64E-03	24	1.87%	341	1.47E-03
								Total		18,273	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	210	9.12E-04	9	7.11%	1300	5.64E-03	17	7.38%	1349	5.86E-03
2	0.42%	77	3.34E-04	10	4.39%	802	3.48E-03	18	8.18%	1494	6.48E-03
3	0.41%	74	3.21E-04	11	4.66%	852	3.70E-03	19	5.70%	1041	4.52E-03
4	0.26%	48	2.07E-04	12	5.89%	1076	4.67E-03	20	4.27%	780	3.39E-03
5	0.50%	91	3.95E-04	13	6.15%	1124	4.88E-03	21	3.26%	595	2.58E-03
6	0.90%	165	7.17E-04	14	6.04%	1103	4.79E-03	22	3.30%	603	2.62E-03
7	3.79%	692	3.00E-03	15	7.01%	1282	5.56E-03	23	2.46%	450	1.95E-03
8	7.76%	1419	6.16E-03	16	7.14%	1304	5.66E-03	24	1.87%	341	1.48E-03
								Total		18,273	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 87
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

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_87	Highway 87 Northbound	NB	3	316.5	0.20	17.0	55.7	3.4	68	36,750	5,372	57,823	8.066E-09	5.947E-09	6.8	3.16
DPM_SB_87	Highway 87 Southbound	SB	3	373.1	0.23	17.0	55.7	3.4	64	36,750	6,333	68,163	8.066E-09	5.947E-09	6.8	3.16
									Total	73,500						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	70	55
Emissions per Vehicle (g/VMT)	0.00052	0.000461	0.000521	0.000410

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_NB_87

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.85%	314	8.93E-06	9	8.12%	2985	7.52E-05	17	4.83%	1775	5.05E-05
2	0.63%	232	6.61E-06	10	7.00%	2574	7.28E-05	18	5.03%	1847	5.26E-05
3	0.59%	217	6.17E-06	11	6.04%	2219	6.28E-05	19	4.08%	1500	4.27E-05
4	0.80%	292	8.32E-06	12	5.57%	2046	5.79E-05	20	3.44%	1264	3.60E-05
5	2.11%	775	2.21E-05	13	5.40%	1985	5.62E-05	21	3.02%	1110	3.16E-05
6	6.09%	2237	6.37E-05	14	5.43%	1994	5.68E-05	22	2.85%	1048	2.98E-05
7	6.87%	2525	7.14E-05	15	5.03%	1848	5.26E-05	23	2.31%	849	2.42E-05
8	7.65%	2813	7.96E-05	16	4.76%	1748	4.98E-05	24	1.50%	552	1.57E-05
								Total		36,750	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_87

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.34%	491	1.64E-05	9	4.48%	1646	5.49E-05	17	8.28%	3042	8.03E-05
2	0.88%	324	1.08E-05	10	4.13%	1517	5.06E-05	18	7.93%	2913	7.69E-05
3	0.78%	285	9.51E-06	11	4.39%	1612	5.38E-05	19	7.35%	2702	8.02E-05
4	0.57%	210	7.02E-06	12	4.97%	1828	6.10E-05	20	5.31%	1952	6.51E-05
5	0.68%	252	8.39E-06	13	6.05%	2224	7.42E-05	21	3.94%	1448	4.83E-05
6	1.27%	468	1.56E-05	14	6.83%	2510	8.37E-05	22	3.22%	1183	3.95E-05
7	2.19%	803	2.68E-05	15	8.28%	3044	1.02E-04	23	2.84%	1044	3.48E-05
8	3.64%	1338	4.46E-05	16	8.56%	3147	9.34E-05	24	2.08%	766	2.55E-05
								Total		36,750	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 87
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

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_87	Highway 87 Northbound	NB	3	316.5	0.20	17.0	56	1.3	68.333333	36,750	5,372	57,823	2.32E-08	1.71E-08	2.6	1.21
PM2.5_SB_87	Highway 87 Southbound	SB	3	373.1	0.23	17.0	56	1.3	63.75	36,750	6,333	68,163	2.32E-08	1.71E-08	2.6	1.21
									Total	73,500						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	70	55
Emissions per Vehicle (g/VMT)	0.001487	0.00130	0.001597	0.001192

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_87

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.85%	314	2.74E-05	9	8.12%	2985	2.13E-04	17	4.83%	1775	1.55E-04
2	0.63%	232	2.02E-05	10	7.00%	2574	2.09E-04	18	5.03%	1847	1.61E-04
3	0.59%	217	1.89E-05	11	6.04%	2219	1.80E-04	19	4.08%	1500	1.31E-04
4	0.80%	292	2.55E-05	12	5.57%	2046	1.66E-04	20	3.44%	1264	1.10E-04
5	2.11%	775	6.77E-05	13	5.40%	1985	1.61E-04	21	3.02%	1110	9.69E-05
6	6.09%	2237	1.95E-04	14	5.43%	1994	1.74E-04	22	2.85%	1048	9.14E-05
7	6.87%	2525	2.05E-04	15	5.03%	1848	1.61E-04	23	2.31%	849	7.41E-05
8	7.65%	2813	2.28E-04	16	4.76%	1748	1.53E-04	24	1.50%	552	4.81E-05
								Total		36,750	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_87

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.34%	491	4.71E-05	9	4.48%	1646	1.58E-04	17	8.28%	3042	2.33E-04
2	0.88%	324	3.10E-05	10	4.13%	1517	1.45E-04	18	7.93%	2913	2.24E-04
3	0.78%	285	2.73E-05	11	4.39%	1612	1.54E-04	19	7.35%	2702	2.27E-04
4	0.57%	210	2.01E-05	12	4.97%	1828	1.75E-04	20	5.31%	1952	1.87E-04
5	0.68%	252	2.41E-05	13	6.05%	2224	2.13E-04	21	3.94%	1448	1.39E-04
6	1.27%	468	4.48E-05	14	6.83%	2510	2.40E-04	22	3.22%	1183	1.13E-04
7	2.19%	803	7.69E-05	15	8.28%	3044	2.92E-04	23	2.84%	1044	1.00E-04
8	3.64%	1338	1.28E-04	16	8.56%	3147	2.64E-04	24	2.08%	766	7.33E-05
								Total		36,750	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 87
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

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_87	Highway 87 Northbound	NB	3	316.5	0.20	17.0	56	1.3	68.333333	36,750	5,372	57,823	2.77E-07	2.04E-07	2.6	1.21
TEXH_SB_87	Highway 87 Southbound	SB	3	373.1	0.23	17.0	56	1.3	63.75	36,750	6,333	68,163	2.77E-07	2.04E-07	2.6	1.21
									Total	73,500						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	70	55
Emissions per Vehicle (g/VMT)	0.01778	0.01600	0.01910	0.01511

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_87

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.85%	314	3.27E-04	9	8.12%	2985	2.61E-03	17	4.83%	1775	1.85E-03
2	0.63%	232	2.42E-04	10	7.00%	2574	2.50E-03	18	5.03%	1847	1.93E-03
3	0.59%	217	2.26E-04	11	6.04%	2219	2.16E-03	19	4.08%	1500	1.56E-03
4	0.80%	292	3.05E-04	12	5.57%	2046	1.99E-03	20	3.44%	1264	1.32E-03
5	2.11%	775	8.09E-04	13	5.40%	1985	1.93E-03	21	3.02%	1110	1.16E-03
6	6.09%	2237	2.33E-03	14	5.43%	1994	2.08E-03	22	2.85%	1048	1.09E-03
7	6.87%	2525	2.45E-03	15	5.03%	1848	1.93E-03	23	2.31%	849	8.86E-04
8	7.65%	2813	2.73E-03	16	4.76%	1748	1.82E-03	24	1.50%	552	5.76E-04
								Total		36,750	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_87

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.85%	314	3.59E-04	9	8.12%	2985	3.42E-03	17	4.83%	1775	1.73E-03
2	0.63%	232	2.66E-04	10	7.00%	2574	2.95E-03	18	5.03%	1847	1.80E-03
3	0.59%	217	2.48E-04	11	6.04%	2219	2.54E-03	19	4.08%	1500	1.54E-03
4	0.80%	292	3.35E-04	12	5.57%	2046	2.34E-03	20	3.44%	1264	1.45E-03
5	2.11%	775	8.88E-04	13	5.40%	1985	2.27E-03	21	3.02%	1110	1.27E-03
6	6.09%	2237	2.56E-03	14	5.43%	1994	2.28E-03	22	2.85%	1048	1.20E-03
7	6.87%	2525	2.89E-03	15	5.03%	1848	2.12E-03	23	2.31%	849	9.73E-04
8	7.65%	2813	3.22E-03	16	4.76%	1748	1.80E-03	24	1.50%	552	6.32E-04
								Total		36,750	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 87
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

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_87	Highway 87 Northbound	NB	3	316.5	0.20	17.0	56	1.3	68.33333	36,750	5,372	57,823	2.36E-07	1.74E-07	2.6	1.21
TEVAP_SB_87	Highway 87 Southbound	SB	3	373.1	0.23	17.0	56	1.3	63.75	36,750	6,333	68,163	2.36E-07	1.74E-07	2.6	1.21
									Total	73,500						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	70	55
Emissions per Vehicle per Hour (g/hour)	0.98368	0.98368	0.98368	0.98368
Emissions per Vehicle per Mile (g/VMT)	0.01513	0.01639	0.01405	0.01789

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_87

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.85%	314	2.41E-04	9	8.12%	2985	2.67E-03	17	4.83%	1775	1.36E-03
2	0.63%	232	1.78E-04	10	7.00%	2574	2.13E-03	18	5.03%	1847	1.42E-03
3	0.59%	217	1.66E-04	11	6.04%	2219	1.83E-03	19	4.08%	1500	1.15E-03
4	0.80%	292	2.24E-04	12	5.57%	2046	1.69E-03	20	3.44%	1264	9.70E-04
5	2.11%	775	5.95E-04	13	5.40%	1985	1.64E-03	21	3.02%	1110	8.52E-04
6	6.09%	2237	1.72E-03	14	5.43%	1994	1.53E-03	22	2.85%	1048	8.05E-04
7	6.87%	2525	2.09E-03	15	5.03%	1848	1.42E-03	23	2.31%	849	6.52E-04
8	7.65%	2813	2.33E-03	16	4.76%	1748	1.34E-03	24	1.50%	552	4.24E-04
								Total		36,750	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_87

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.85%	314	3.06E-04	9	8.12%	2985	2.91E-03	17	4.83%	1775	2.04E-03
2	0.63%	232	2.26E-04	10	7.00%	2574	2.51E-03	18	5.03%	1847	2.13E-03
3	0.59%	217	2.11E-04	11	6.04%	2219	2.16E-03	19	4.08%	1500	1.58E-03
4	0.80%	292	2.85E-04	12	5.57%	2046	1.99E-03	20	3.44%	1264	1.23E-03
5	2.11%	775	7.56E-04	13	5.40%	1985	1.93E-03	21	3.02%	1110	1.08E-03
6	6.09%	2237	2.18E-03	14	5.43%	1994	1.94E-03	22	2.85%	1048	1.02E-03
7	6.87%	2525	2.46E-03	15	5.03%	1848	1.80E-03	23	2.31%	849	8.28E-04
8	7.65%	2813	2.74E-03	16	4.76%	1748	1.85E-03	24	1.50%	552	5.38E-04
								Total		36,750	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 87
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

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_87	Highway 87 Northbound	NB	3	316.5	0.20	17.0	56	1.3	68.333333	36,750	5,372	57,823	1.74E-07	1.28E-07	2.6	1.21
FUG_SB_87	Highway 87 Southbound	SB	3	373.1	0.23	17.0	56	1.3	63.75	36,750	6,333	68,163	1.74E-07	1.28E-07	2.6	1.21
									Total	73,500						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	70	55
Tire Wear - Emissions per Vehicle (g/VMT)	0.00207	0.00207	0.00207	0.00207
Brake Wear - Emissions per Vehicle (g/VMT)	0.00179	0.00209	0.0018	0.00239
Road Dust - Emissions per Vehicle (g/VMT)	0.00729	0.00729	0.00729	0.00729
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01115	0.01145	0.01115	0.01175

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_87

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.85%	314	1.91E-04	9	8.12%	2985	1.87E-03	17	4.83%	1775	1.08E-03
2	0.63%	232	1.41E-04	10	7.00%	2574	1.57E-03	18	5.03%	1847	1.12E-03
3	0.59%	217	1.32E-04	11	6.04%	2219	1.35E-03	19	4.08%	1500	9.13E-04
4	0.80%	292	1.78E-04	12	5.57%	2046	1.25E-03	20	3.44%	1264	7.70E-04
5	2.11%	775	4.72E-04	13	5.40%	1985	1.21E-03	21	3.02%	1110	6.76E-04
6	6.09%	2237	1.36E-03	14	5.43%	1994	1.21E-03	22	2.85%	1048	6.38E-04
7	6.87%	2525	1.54E-03	15	5.03%	1848	1.13E-03	23	2.31%	849	5.17E-04
8	7.65%	2813	1.71E-03	16	4.76%	1748	1.06E-03	24	1.50%	552	3.36E-04
								Total		36,750	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_87

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.85%	314	2.25E-04	9	8.12%	2985	2.14E-03	17	4.83%	1775	1.34E-03
2	0.63%	232	1.67E-04	10	7.00%	2574	1.85E-03	18	5.03%	1847	1.40E-03
3	0.59%	217	1.56E-04	11	6.04%	2219	1.59E-03	19	4.08%	1500	1.11E-03
4	0.80%	292	2.10E-04	12	5.57%	2046	1.47E-03	20	3.44%	1264	9.07E-04
5	2.11%	775	5.57E-04	13	5.40%	1985	1.43E-03	21	3.02%	1110	7.97E-04
6	6.09%	2237	1.61E-03	14	5.43%	1994	1.43E-03	22	2.85%	1048	7.52E-04
7	6.87%	2525	1.81E-03	15	5.03%	1848	1.33E-03	23	2.31%	849	6.10E-04
8	7.65%	2813	2.02E-03	16	4.76%	1748	1.29E-03	24	1.50%	552	3.96E-04
								Total		36,750	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 880 Ramps
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

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)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_880_ON	Highway 880 Onramp	ON	3	319.8	0.20	17.0	55.7	3.4	35	2,675	5,428	58,425	4.681E-10	3.452E-10	6.8	3.16
DPM_880_OFF	Highway 880 Offramp	OFF	4	214.1	0.13	20.6	67.7	3.4	35	2,675	4,417	47,544	3.851E-10	2.840E-10	6.8	3.16
									Total	5,350						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00041			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_880_ON

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	28	6.29E-07	9	5.94%	159	3.62E-06	17	6.16%	165	3.76E-06
2	0.65%	18	3.99E-07	10	5.69%	152	3.47E-06	18	5.91%	158	3.61E-06
3	0.59%	16	3.58E-07	11	5.54%	148	3.38E-06	19	5.92%	158	3.61E-06
4	0.65%	17	3.96E-07	12	5.89%	158	3.59E-06	20	5.25%	140	3.20E-06
5	1.19%	32	7.23E-07	13	6.07%	162	3.70E-06	21	4.57%	122	2.79E-06
6	2.56%	69	1.56E-06	14	6.34%	170	3.87E-06	22	3.88%	104	2.36E-06
7	3.71%	99	2.26E-06	15	6.44%	172	3.93E-06	23	2.66%	71	1.62E-06
8	5.26%	141	3.20E-06	16	6.34%	170	3.87E-06	24	1.76%	47	1.07E-06
								Total		2,675	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_880_OFF

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.03%	28	4.21E-07	9	5.94%	159	2.43E-06	17	6.16%	165	2.51E-06
2	0.65%	18	2.67E-07	10	5.69%	152	2.32E-06	18	5.91%	158	2.41E-06
3	0.59%	16	2.40E-07	11	5.54%	148	2.26E-06	19	5.92%	158	2.42E-06
4	0.65%	17	2.65E-07	12	5.89%	158	2.40E-06	20	5.25%	140	2.14E-06
5	1.19%	32	4.84E-07	13	6.07%	162	2.48E-06	21	4.57%	122	1.87E-06
6	2.56%	69	1.05E-06	14	6.34%	170	2.59E-06	22	3.88%	104	1.58E-06
7	3.71%	99	1.52E-06	15	6.44%	172	2.63E-06	23	2.66%	71	1.09E-06
8	5.26%	141	2.15E-06	16	6.34%	170	2.59E-06	24	1.76%	47	7.17E-07
								Total		2,675	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 880 Ramps
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

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_880_ON	Highway 880 Onramp	ON	3	319.8	0.20	17.0	56	1.3	35	2,675	5,428	58,425	1.60E-09	1.18E-09	2.6	1.21
PM2.5_880_OFF	Highway 880 Offramp	OFF	4	214.1	0.13	20.6	68	1.3	35	2,675	4,417	47,544	1.32E-09	9.70E-10	2.6	1.21
									Total	5,350						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001411			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_880_ON

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	28	2.15E-06	9	5.94%	159	1.24E-05	17	6.16%	165	1.28E-05
2	0.65%	18	1.36E-06	10	5.69%	152	1.19E-05	18	5.91%	158	1.23E-05
3	0.59%	16	1.22E-06	11	5.54%	148	1.15E-05	19	5.92%	158	1.23E-05
4	0.65%	17	1.35E-06	12	5.89%	158	1.23E-05	20	5.25%	140	1.09E-05
5	1.19%	32	2.47E-06	13	6.07%	162	1.26E-05	21	4.57%	122	9.53E-06
6	2.56%	69	5.34E-06	14	6.34%	170	1.32E-05	22	3.88%	104	8.07E-06
7	3.71%	99	7.73E-06	15	6.44%	172	1.34E-05	23	2.66%	71	5.54E-06
8	5.26%	141	1.09E-05	16	6.34%	170	1.32E-05	24	1.76%	47	3.66E-06
								Total		2,675	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_880_OFF

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.03%	28	1.44E-06	9	5.94%	159	8.29E-06	17	6.16%	165	8.59E-06
2	0.65%	18	9.13E-07	10	5.69%	152	7.94E-06	18	5.91%	158	8.25E-06
3	0.59%	16	8.19E-07	11	5.54%	148	7.73E-06	19	5.92%	158	8.25E-06
4	0.65%	17	9.06E-07	12	5.89%	158	8.21E-06	20	5.25%	140	7.32E-06
5	1.19%	32	1.65E-06	13	6.07%	162	8.47E-06	21	4.57%	122	6.38E-06
6	2.56%	69	3.58E-06	14	6.34%	170	8.85E-06	22	3.88%	104	5.41E-06
7	3.71%	99	5.18E-06	15	6.44%	172	8.99E-06	23	2.66%	71	3.71E-06
8	5.26%	141	7.33E-06	16	6.34%	170	8.84E-06	24	1.76%	47	2.45E-06
								Total		2,675	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 880 Ramps
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

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_880_ON	Highway 880 Onramp	ON	3	319.8	0.20	17.0	56	1.3	35	2,675	5,428	58,425	2.26E-08	1.67E-08	2.6	1.21
TEXH_880_OFF	Highway 880 Offramp	OFF	4	214.1	0.13	20.6	68	1.3	35	2,675	4,417	47,544	1.86E-08	1.37E-08	2.6	1.21
									Total	5,350						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01994			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_880_ON

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	28	3.04E-05	9	5.94%	159	1.75E-04	17	6.16%	165	1.81E-04
2	0.65%	18	1.93E-05	10	5.69%	152	1.68E-04	18	5.91%	158	1.74E-04
3	0.59%	16	1.73E-05	11	5.54%	148	1.63E-04	19	5.92%	158	1.74E-04
4	0.65%	17	1.91E-05	12	5.89%	158	1.73E-04	20	5.25%	140	1.55E-04
5	1.19%	32	3.49E-05	13	6.07%	162	1.79E-04	21	4.57%	122	1.35E-04
6	2.56%	69	7.55E-05	14	6.34%	170	1.87E-04	22	3.88%	104	1.14E-04
7	3.71%	99	1.09E-04	15	6.44%	172	1.90E-04	23	2.66%	71	7.83E-05
8	5.26%	141	1.55E-04	16	6.34%	170	1.87E-04	24	1.76%	47	5.17E-05
								Total		2,675	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_880_OFF

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.03%	28	2.03E-05	9	5.94%	159	1.17E-04	17	6.16%	165	1.21E-04
2	0.65%	18	1.29E-05	10	5.69%	152	1.12E-04	18	5.91%	158	1.17E-04
3	0.59%	16	1.16E-05	11	5.54%	148	1.09E-04	19	5.92%	158	1.17E-04
4	0.65%	17	1.28E-05	12	5.89%	158	1.16E-04	20	5.25%	140	1.04E-04
5	1.19%	32	2.34E-05	13	6.07%	162	1.20E-04	21	4.57%	122	9.02E-05
6	2.56%	69	5.05E-05	14	6.34%	170	1.25E-04	22	3.88%	104	7.64E-05
7	3.71%	99	7.32E-05	15	6.44%	172	1.27E-04	23	2.66%	71	5.24E-05
8	5.26%	141	1.04E-04	16	6.34%	170	1.25E-04	24	1.76%	47	3.46E-05
								Total		2,675	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 880 Ramps
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

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_880_ON	Highway 880 Onramp	ON	3	319.8	0.20	17.0	56	1.3	35	2,675	5,428	58,425	3.16E-08	2.33E-08	2.6	1.21
TEVAP_880_OFF	Highway 880 Offramp	OFF	4	214.1	0.13	20.6	68	1.3	35	2,675	4,417	47,544	2.60E-08	1.91E-08	2.6	1.21
									Total	5,350						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.97423			
Emissions per Vehicle per Mile (g/VMT)	0.02784			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_880_ON

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	28	4.24E-05	9	5.94%	159	2.44E-04	17	6.16%	165	2.53E-04
2	0.65%	18	2.69E-05	10	5.69%	152	2.34E-04	18	5.91%	158	2.43E-04
3	0.59%	16	2.41E-05	11	5.54%	148	2.28E-04	19	5.92%	158	2.43E-04
4	0.65%	17	2.67E-05	12	5.89%	158	2.42E-04	20	5.25%	140	2.16E-04
5	1.19%	32	4.87E-05	13	6.07%	162	2.50E-04	21	4.57%	122	1.88E-04
6	2.56%	69	1.05E-04	14	6.34%	170	2.61E-04	22	3.88%	104	1.59E-04
7	3.71%	99	1.53E-04	15	6.44%	172	2.65E-04	23	2.66%	71	1.09E-04
8	5.26%	141	2.16E-04	16	6.34%	170	2.61E-04	24	1.76%	47	7.22E-05
								Total		2,675	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_880_OFF

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.03%	28	2.84E-05	9	5.94%	159	1.63E-04	17	6.16%	165	1.69E-04
2	0.65%	18	1.80E-05	10	5.69%	152	1.57E-04	18	5.91%	158	1.63E-04
3	0.59%	16	1.62E-05	11	5.54%	148	1.53E-04	19	5.92%	158	1.63E-04
4	0.65%	17	1.79E-05	12	5.89%	158	1.62E-04	20	5.25%	140	1.44E-04
5	1.19%	32	3.26E-05	13	6.07%	162	1.67E-04	21	4.57%	122	1.26E-04
6	2.56%	69	7.06E-05	14	6.34%	170	1.75E-04	22	3.88%	104	1.07E-04
7	3.71%	99	1.02E-04	15	6.44%	172	1.77E-04	23	2.66%	71	7.32E-05
8	5.26%	141	1.45E-04	16	6.34%	170	1.74E-04	24	1.76%	47	4.83E-05
								Total		2,675	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - Highway 880 Ramps
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

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_880_ON	Highway 880 Onramp	ON	3	319.8	0.20	17.0	56	1.3	35	2,675	5,428	58,425	1.76E-08	1.30E-08	2.6	1.21
FUG_880_OFF	Highway 880 Offramp	OFF	4	214.1	0.13	20.6	68	1.3	35	2,675	4,417	47,544	1.45E-08	1.07E-08	2.6	1.21
									Total	5,350						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00565			
Road Dust - Emissions per Vehicle (g/VMT)	0.00776			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01553			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_880_ON

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	28	2.36E-05	9	5.94%	159	1.36E-04	17	6.16%	165	1.41E-04
2	0.65%	18	1.50E-05	10	5.69%	152	1.30E-04	18	5.91%	158	1.36E-04
3	0.59%	16	1.35E-05	11	5.54%	148	1.27E-04	19	5.92%	158	1.36E-04
4	0.65%	17	1.49E-05	12	5.89%	158	1.35E-04	20	5.25%	140	1.20E-04
5	1.19%	32	2.72E-05	13	6.07%	162	1.39E-04	21	4.57%	122	1.05E-04
6	2.56%	69	5.88E-05	14	6.34%	170	1.45E-04	22	3.88%	104	8.88E-05
7	3.71%	99	8.51E-05	15	6.44%	172	1.48E-04	23	2.66%	71	6.09E-05
8	5.26%	141	1.20E-04	16	6.34%	170	1.45E-04	24	1.76%	47	4.03E-05
								Total		2,675	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_880_OFF

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.03%	28	1.58E-05	9	5.94%	159	9.12E-05	17	6.16%	165	9.45E-05
2	0.65%	18	1.00E-05	10	5.69%	152	8.73E-05	18	5.91%	158	9.08E-05
3	0.59%	16	9.02E-06	11	5.54%	148	8.51E-05	19	5.92%	158	9.08E-05
4	0.65%	17	9.97E-06	12	5.89%	158	9.04E-05	20	5.25%	140	8.06E-05
5	1.19%	32	1.82E-05	13	6.07%	162	9.32E-05	21	4.57%	122	7.02E-05
6	2.56%	69	3.94E-05	14	6.34%	170	9.74E-05	22	3.88%	104	5.95E-05
7	3.71%	99	5.70E-05	15	6.44%	172	9.89E-05	23	2.66%	71	4.08E-05
8	5.26%	141	8.07E-05	16	6.34%	170	9.73E-05	24	1.76%	47	2.70E-05
								Total		2,675	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - W Hedding St
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	31.7	3.4	35	9,697	10,086	108,569	2.527E-09	1.864E-09	6.8	3.16
DPM_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	31.7	3.4	35	9,697	10,079	108,486	2.527E-09	1.864E-09	6.8	3.16
									Total	19,394						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00035			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	386	2.43E-05	9	6.44%	624	3.94E-05	17	5.53%	536	3.38E-05
2	2.67%	259	1.63E-05	10	7.40%	717	4.52E-05	18	3.14%	305	1.92E-05
3	2.84%	275	1.74E-05	11	6.32%	612	3.86E-05	19	2.35%	228	1.44E-05
4	3.30%	320	2.02E-05	12	6.88%	668	4.21E-05	20	0.86%	83	5.27E-06
5	2.16%	209	1.32E-05	13	6.27%	608	3.83E-05	21	3.08%	298	1.88E-05
6	3.30%	320	2.02E-05	14	6.21%	602	3.80E-05	22	4.21%	409	2.58E-05
7	6.03%	585	3.69E-05	15	5.13%	498	3.14E-05	23	2.62%	254	1.60E-05
8	4.56%	442	2.79E-05	16	3.88%	376	2.37E-05	24	0.85%	83	5.21E-06
								Total		9,697	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	386	2.43E-05	9	6.44%	624	3.94E-05	17	5.53%	536	3.38E-05
2	2.67%	259	1.63E-05	10	7.40%	717	4.52E-05	18	3.14%	305	1.92E-05
3	2.84%	275	1.74E-05	11	6.32%	612	3.86E-05	19	2.35%	228	1.43E-05
4	3.30%	320	2.01E-05	12	6.88%	668	4.21E-05	20	0.86%	83	5.26E-06
5	2.16%	209	1.32E-05	13	6.27%	608	3.83E-05	21	3.08%	298	1.88E-05
6	3.30%	320	2.01E-05	14	6.21%	602	3.80E-05	22	4.21%	409	2.58E-05
7	6.03%	585	3.69E-05	15	5.13%	498	3.14E-05	23	2.62%	254	1.60E-05
8	4.56%	442	2.79E-05	16	3.88%	376	2.37E-05	24	0.85%	83	5.21E-06
								Total		9,697	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - W Hedding St
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	9,697	10,086	108,569	9.78E-09	7.21E-09	2.6	1.21
PM2.5_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	9,697	10,079	108,486	9.78E-09	7.21E-09	2.6	1.21
									Total	19,394						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001355			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	111	2.72E-05	9	7.11%	690	1.68E-04	17	7.38%	716	1.75E-04
2	0.42%	41	9.96E-06	10	4.39%	425	1.04E-04	18	8.18%	793	1.94E-04
3	0.41%	39	9.60E-06	11	4.66%	452	1.10E-04	19	5.70%	553	1.35E-04
4	0.26%	25	6.18E-06	12	5.89%	571	1.39E-04	20	4.27%	414	1.01E-04
5	0.50%	48	1.18E-05	13	6.15%	597	1.46E-04	21	3.26%	316	7.72E-05
6	0.90%	88	2.14E-05	14	6.04%	585	1.43E-04	22	3.30%	320	7.82E-05
7	3.79%	367	8.97E-05	15	7.01%	680	1.66E-04	23	2.46%	239	5.83E-05
8	7.76%	753	1.84E-04	16	7.14%	692	1.69E-04	24	1.87%	181	4.42E-05
								Total		9,697	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	111	2.72E-05	9	7.11%	690	1.68E-04	17	7.38%	716	1.75E-04
2	0.42%	41	9.96E-06	10	4.39%	425	1.04E-04	18	8.18%	793	1.94E-04
3	0.41%	39	9.59E-06	11	4.66%	452	1.10E-04	19	5.70%	553	1.35E-04
4	0.26%	25	6.17E-06	12	5.89%	571	1.39E-04	20	4.27%	414	1.01E-04
5	0.50%	48	1.18E-05	13	6.15%	597	1.46E-04	21	3.26%	316	7.71E-05
6	0.90%	88	2.14E-05	14	6.04%	585	1.43E-04	22	3.30%	320	7.81E-05
7	3.79%	367	8.96E-05	15	7.01%	680	1.66E-04	23	2.46%	239	5.83E-05
8	7.76%	753	1.84E-04	16	7.14%	692	1.69E-04	24	1.87%	181	4.42E-05
								Total		9,697	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - W Hedding St
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	9,697	10,086	108,569	1.41E-07	1.04E-07	2.6	1.21
TEXH_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	9,697	10,079	108,486	1.41E-07	1.04E-07	2.6	1.21
									Total	19,394						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01958			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	111	3.93E-04	9	7.11%	690	2.43E-03	17	7.38%	716	2.53E-03
2	0.42%	41	1.44E-04	10	4.39%	425	1.50E-03	18	8.18%	793	2.80E-03
3	0.41%	39	1.39E-04	11	4.66%	452	1.60E-03	19	5.70%	553	1.95E-03
4	0.26%	25	8.92E-05	12	5.89%	571	2.01E-03	20	4.27%	414	1.46E-03
5	0.50%	48	1.71E-04	13	6.15%	597	2.11E-03	21	3.26%	316	1.11E-03
6	0.90%	88	3.09E-04	14	6.04%	585	2.07E-03	22	3.30%	320	1.13E-03
7	3.79%	367	1.30E-03	15	7.01%	680	2.40E-03	23	2.46%	239	8.43E-04
8	7.76%	753	2.66E-03	16	7.14%	692	2.44E-03	24	1.87%	181	6.39E-04
								Total		9,697	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	111	3.93E-04	9	7.11%	690	2.43E-03	17	7.38%	716	2.52E-03
2	0.42%	41	1.44E-04	10	4.39%	425	1.50E-03	18	8.18%	793	2.80E-03
3	0.41%	39	1.39E-04	11	4.66%	452	1.59E-03	19	5.70%	553	1.95E-03
4	0.26%	25	8.92E-05	12	5.89%	571	2.01E-03	20	4.27%	414	1.46E-03
5	0.50%	48	1.70E-04	13	6.15%	597	2.10E-03	21	3.26%	316	1.11E-03
6	0.90%	88	3.09E-04	14	6.04%	585	2.06E-03	22	3.30%	320	1.13E-03
7	3.79%	367	1.29E-03	15	7.01%	680	2.40E-03	23	2.46%	239	8.42E-04
8	7.76%	753	2.65E-03	16	7.14%	692	2.44E-03	24	1.87%	181	6.38E-04
								Total		9,697	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - W Hedding St
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	9,697	10,086	108,569	2.01E-07	1.48E-07	2.6	1.21
TEVAP_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	9,697	10,079	108,486	2.01E-07	1.48E-07	2.6	1.21
									Total	19,394						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.97293			
Emissions per Vehicle per Mile (g/VMT)	0.02780			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	111	5.59E-04	9	7.11%	690	3.46E-03	17	7.38%	716	3.59E-03
2	0.42%	41	2.04E-04	10	4.39%	425	2.13E-03	18	8.18%	793	3.97E-03
3	0.41%	39	1.97E-04	11	4.66%	452	2.27E-03	19	5.70%	553	2.77E-03
4	0.26%	25	1.27E-04	12	5.89%	571	2.86E-03	20	4.27%	414	2.08E-03
5	0.50%	48	2.42E-04	13	6.15%	597	2.99E-03	21	3.26%	316	1.58E-03
6	0.90%	88	4.39E-04	14	6.04%	585	2.93E-03	22	3.30%	320	1.60E-03
7	3.79%	367	1.84E-03	15	7.01%	680	3.41E-03	23	2.46%	239	1.20E-03
8	7.76%	753	3.77E-03	16	7.14%	692	3.47E-03	24	1.87%	181	9.07E-04
								Total		9,697	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	111	5.58E-04	9	7.11%	690	3.45E-03	17	7.38%	716	3.59E-03
2	0.42%	41	2.04E-04	10	4.39%	425	2.13E-03	18	8.18%	793	3.97E-03
3	0.41%	39	1.97E-04	11	4.66%	452	2.26E-03	19	5.70%	553	2.77E-03
4	0.26%	25	1.27E-04	12	5.89%	571	2.86E-03	20	4.27%	414	2.07E-03
5	0.50%	48	2.42E-04	13	6.15%	597	2.99E-03	21	3.26%	316	1.58E-03
6	0.90%	88	4.39E-04	14	6.04%	585	2.93E-03	22	3.30%	320	1.60E-03
7	3.79%	367	1.84E-03	15	7.01%	680	3.41E-03	23	2.46%	239	1.20E-03
8	7.76%	753	3.77E-03	16	7.14%	692	3.47E-03	24	1.87%	181	9.07E-04
								Total		9,697	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation - W Hedding St
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	9,697	10,086	108,569	1.65E-07	1.22E-07	2.6	1.21
FUG_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	9,697	10,079	108,486	1.65E-07	1.22E-07	2.6	1.21
									Total	19,394						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00549			
Road Dust - Emissions per Vehicle (g/VMT)	0.01525			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02284			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	111	4.59E-04	9	7.11%	690	2.84E-03	17	7.38%	716	2.95E-03
2	0.42%	41	1.68E-04	10	4.39%	425	1.75E-03	18	8.18%	793	3.26E-03
3	0.41%	39	1.62E-04	11	4.66%	452	1.86E-03	19	5.70%	553	2.27E-03
4	0.26%	25	1.04E-04	12	5.89%	571	2.35E-03	20	4.27%	414	1.70E-03
5	0.50%	48	1.99E-04	13	6.15%	597	2.46E-03	21	3.26%	316	1.30E-03
6	0.90%	88	3.61E-04	14	6.04%	585	2.41E-03	22	3.30%	320	1.32E-03
7	3.79%	367	1.51E-03	15	7.01%	680	2.80E-03	23	2.46%	239	9.83E-04
8	7.76%	753	3.10E-03	16	7.14%	692	2.85E-03	24	1.87%	181	7.45E-04
								Total		9,697	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	111	4.59E-04	9	7.11%	690	2.84E-03	17	7.38%	716	2.95E-03
2	0.42%	41	1.68E-04	10	4.39%	425	1.75E-03	18	8.18%	793	3.26E-03
3	0.41%	39	1.62E-04	11	4.66%	452	1.86E-03	19	5.70%	553	2.27E-03
4	0.26%	25	1.04E-04	12	5.89%	571	2.35E-03	20	4.27%	414	1.70E-03
5	0.50%	48	1.99E-04	13	6.15%	597	2.45E-03	21	3.26%	316	1.30E-03
6	0.90%	88	3.61E-04	14	6.04%	585	2.41E-03	22	3.30%	320	1.32E-03
7	3.79%	367	1.51E-03	15	7.01%	680	2.80E-03	23	2.46%	239	9.82E-04
8	7.76%	753	3.10E-03	16	7.14%	692	2.85E-03	24	1.87%	181	7.45E-04
								Total		9,697	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation -W Taylor Street
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	43.7	3.4	35	16,105	9,158	98,578	3.045E-09	2.245E-09	6.8	3.16
DPM_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	43.7	3.4	35	16,105	9,293	100,026	3.045E-09	2.245E-09	6.8	3.16
									Total	32,210						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00035			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	641	2.66E-05	9	6.44%	1037	4.31E-05	17	5.53%	890	3.70E-05
2	2.67%	430	1.79E-05	10	7.40%	1191	4.95E-05	18	3.14%	506	2.10E-05
3	2.84%	458	1.90E-05	11	6.32%	1017	4.23E-05	19	2.35%	378	1.57E-05
4	3.30%	531	2.21E-05	12	6.88%	1109	4.61E-05	20	0.86%	139	5.76E-06
5	2.16%	348	1.44E-05	13	6.27%	1009	4.19E-05	21	3.08%	496	2.06E-05
6	3.30%	531	2.21E-05	14	6.21%	1000	4.16E-05	22	4.21%	679	2.82E-05
7	6.03%	971	4.04E-05	15	5.13%	826	3.43E-05	23	2.62%	422	1.75E-05
8	4.56%	735	3.05E-05	16	3.88%	625	2.60E-05	24	0.85%	137	5.70E-06
								Total		16,105	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	641	2.70E-05	9	6.44%	1037	4.37E-05	17	5.53%	890	3.75E-05
2	2.67%	430	1.81E-05	10	7.40%	1191	5.02E-05	18	3.14%	506	2.13E-05
3	2.84%	458	1.93E-05	11	6.32%	1017	4.29E-05	19	2.35%	378	1.59E-05
4	3.30%	531	2.24E-05	12	6.88%	1109	4.67E-05	20	0.86%	139	5.85E-06
5	2.16%	348	1.47E-05	13	6.27%	1009	4.26E-05	21	3.08%	496	2.09E-05
6	3.30%	531	2.24E-05	14	6.21%	1000	4.22E-05	22	4.21%	679	2.86E-05
7	6.03%	971	4.10E-05	15	5.13%	826	3.48E-05	23	2.62%	422	1.78E-05
8	4.56%	735	3.10E-05	16	3.88%	625	2.64E-05	24	0.85%	137	5.79E-06
								Total		16,105	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation -W Taylor Street
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	16,105	9,158	98,578	1.18E-08	8.69E-09	2.6	1.21
PM2.5_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	16,105	9,293	100,026	1.18E-08	8.69E-09	2.6	1.21
									Total	32,210						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001355			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	185	2.98E-05	9	7.11%	1145	1.84E-04	17	7.38%	1189	1.91E-04
2	0.42%	68	1.09E-05	10	4.39%	707	1.14E-04	18	8.18%	1317	2.12E-04
3	0.41%	65	1.05E-05	11	4.66%	751	1.21E-04	19	5.70%	918	1.48E-04
4	0.26%	42	6.75E-06	12	5.89%	948	1.53E-04	20	4.27%	688	1.11E-04
5	0.50%	80	1.29E-05	13	6.15%	991	1.59E-04	21	3.26%	525	8.44E-05
6	0.90%	146	2.34E-05	14	6.04%	972	1.56E-04	22	3.30%	531	8.55E-05
7	3.79%	610	9.81E-05	15	7.01%	1130	1.82E-04	23	2.46%	397	6.38E-05
8	7.76%	1250	2.01E-04	16	7.14%	1150	1.85E-04	24	1.87%	301	4.84E-05
								Total		16,105	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	185	3.02E-05	9	7.11%	1145	1.87E-04	17	7.38%	1189	1.94E-04
2	0.42%	68	1.11E-05	10	4.39%	707	1.15E-04	18	8.18%	1317	2.15E-04
3	0.41%	65	1.07E-05	11	4.66%	751	1.23E-04	19	5.70%	918	1.50E-04
4	0.26%	42	6.85E-06	12	5.89%	948	1.55E-04	20	4.27%	688	1.12E-04
5	0.50%	80	1.31E-05	13	6.15%	991	1.62E-04	21	3.26%	525	8.57E-05
6	0.90%	146	2.38E-05	14	6.04%	972	1.59E-04	22	3.30%	531	8.68E-05
7	3.79%	610	9.96E-05	15	7.01%	1130	1.84E-04	23	2.46%	397	6.47E-05
8	7.76%	1250	2.04E-04	16	7.14%	1150	1.88E-04	24	1.87%	301	4.91E-05
								Total		16,105	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation -W Taylor Street
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	16,105	9,158	98,578	1.70E-07	1.26E-07	2.6	1.21
TEXH_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	16,105	9,293	100,026	1.70E-07	1.26E-07	2.6	1.21
									Total	32,210						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01958			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	185	4.30E-04	9	7.11%	1145	2.66E-03	17	7.38%	1189	2.76E-03
2	0.42%	68	1.57E-04	10	4.39%	707	1.64E-03	18	8.18%	1317	3.06E-03
3	0.41%	65	1.52E-04	11	4.66%	751	1.75E-03	19	5.70%	918	2.13E-03
4	0.26%	42	9.76E-05	12	5.89%	948	2.20E-03	20	4.27%	688	1.60E-03
5	0.50%	80	1.87E-04	13	6.15%	991	2.30E-03	21	3.26%	525	1.22E-03
6	0.90%	146	3.38E-04	14	6.04%	972	2.26E-03	22	3.30%	531	1.24E-03
7	3.79%	610	1.42E-03	15	7.01%	1130	2.62E-03	23	2.46%	397	9.22E-04
8	7.76%	1250	2.91E-03	16	7.14%	1150	2.67E-03	24	1.87%	301	6.99E-04
								Total		16,105	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	185	4.37E-04	9	7.11%	1145	2.70E-03	17	7.38%	1189	2.80E-03
2	0.42%	68	1.60E-04	10	4.39%	707	1.67E-03	18	8.18%	1317	3.10E-03
3	0.41%	65	1.54E-04	11	4.66%	751	1.77E-03	19	5.70%	918	2.16E-03
4	0.26%	42	9.90E-05	12	5.89%	948	2.24E-03	20	4.27%	688	1.62E-03
5	0.50%	80	1.89E-04	13	6.15%	991	2.34E-03	21	3.26%	525	1.24E-03
6	0.90%	146	3.43E-04	14	6.04%	972	2.29E-03	22	3.30%	531	1.25E-03
7	3.79%	610	1.44E-03	15	7.01%	1130	2.66E-03	23	2.46%	397	9.35E-04
8	7.76%	1250	2.95E-03	16	7.14%	1150	2.71E-03	24	1.87%	301	7.09E-04
								Total		16,105	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation -W Taylor Street
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	16,105	9,158	98,578	2.42E-07	1.78E-07	2.6	1.21
TEVAP_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	16,105	9,293	100,026	2.42E-07	1.78E-07	2.6	1.21
									Total	32,210						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.97293			
Emissions per Vehicle per Mile (g/VMT)	0.02780			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	185	6.11E-04	9	7.11%	1145	3.78E-03	17	7.38%	1189	3.92E-03
2	0.42%	68	2.24E-04	10	4.39%	707	2.33E-03	18	8.18%	1317	4.35E-03
3	0.41%	65	2.15E-04	11	4.66%	751	2.48E-03	19	5.70%	918	3.03E-03
4	0.26%	42	1.39E-04	12	5.89%	948	3.13E-03	20	4.27%	688	2.27E-03
5	0.50%	80	2.65E-04	13	6.15%	991	3.27E-03	21	3.26%	525	1.73E-03
6	0.90%	146	4.80E-04	14	6.04%	972	3.21E-03	22	3.30%	531	1.75E-03
7	3.79%	610	2.01E-03	15	7.01%	1130	3.73E-03	23	2.46%	397	1.31E-03
8	7.76%	1250	4.13E-03	16	7.14%	1150	3.79E-03	24	1.87%	301	9.92E-04
								Total		16,105	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	185	6.20E-04	9	7.11%	1145	3.84E-03	17	7.38%	1189	3.98E-03
2	0.42%	68	2.27E-04	10	4.39%	707	2.37E-03	18	8.18%	1317	4.41E-03
3	0.41%	65	2.19E-04	11	4.66%	751	2.51E-03	19	5.70%	918	3.07E-03
4	0.26%	42	1.41E-04	12	5.89%	948	3.18E-03	20	4.27%	688	2.30E-03
5	0.50%	80	2.69E-04	13	6.15%	991	3.32E-03	21	3.26%	525	1.76E-03
6	0.90%	146	4.88E-04	14	6.04%	972	3.26E-03	22	3.30%	531	1.78E-03
7	3.79%	610	2.04E-03	15	7.01%	1130	3.78E-03	23	2.46%	397	1.33E-03
8	7.76%	1250	4.19E-03	16	7.14%	1150	3.85E-03	24	1.87%	301	1.01E-03
								Total		16,105	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Cumulative Operation -W Taylor Street
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	16,105	9,158	98,578	1.99E-07	1.46E-07	2.6	1.21
FUG_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	16,105	9,293	100,026	1.99E-07	1.46E-07	2.6	1.21
									Total	32,210						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00549			
Road Dust - Emissions per Vehicle (g/VMT)	0.01525			
otal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02284			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	185	5.02E-04	9	7.11%	1145	3.11E-03	17	7.38%	1189	3.22E-03
2	0.42%	68	1.84E-04	10	4.39%	707	1.92E-03	18	8.18%	1317	3.57E-03
3	0.41%	65	1.77E-04	11	4.66%	751	2.04E-03	19	5.70%	918	2.49E-03
4	0.26%	42	1.14E-04	12	5.89%	948	2.57E-03	20	4.27%	688	1.86E-03
5	0.50%	80	2.18E-04	13	6.15%	991	2.69E-03	21	3.26%	525	1.42E-03
6	0.90%	146	3.95E-04	14	6.04%	972	2.64E-03	22	3.30%	531	1.44E-03
7	3.79%	610	1.65E-03	15	7.01%	1130	3.06E-03	23	2.46%	397	1.08E-03
8	7.76%	1250	3.39E-03	16	7.14%	1150	3.12E-03	24	1.87%	301	8.15E-04
								Total		16,105	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	185	5.09E-04	9	7.11%	1145	3.15E-03	17	7.38%	1189	3.27E-03
2	0.42%	68	1.86E-04	10	4.39%	707	1.94E-03	18	8.18%	1317	3.62E-03
3	0.41%	65	1.80E-04	11	4.66%	751	2.07E-03	19	5.70%	918	2.52E-03
4	0.26%	42	1.16E-04	12	5.89%	948	2.61E-03	20	4.27%	688	1.89E-03
5	0.50%	80	2.21E-04	13	6.15%	991	2.73E-03	21	3.26%	525	1.44E-03
6	0.90%	146	4.00E-04	14	6.04%	972	2.67E-03	22	3.30%	531	1.46E-03
7	3.79%	610	1.68E-03	15	7.01%	1130	3.11E-03	23	2.46%	397	1.09E-03
8	7.76%	1250	3.44E-03	16	7.14%	1150	3.16E-03	24	1.87%	301	8.27E-04
								Total		16,105	

File Name:	Local Roadway 2026.EF
CT-EMFAC2021 Version:	1.0.2.0
Run Date:	11/7/2023 11:33:59 AM
Area:	Santa Clara (SF)
Analysis Year:	2026
Season:	Annual

===

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.017	0.416	0.563
Truck 2	0.018	0.904	0.045
Non-Truck	0.965	0.007	0.914

===

Road Type:	Major/Collector		
Silt Loading Factor:	CARB	0.032 g/m2	
Precipitation Correction:	CARB	P = 63 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	0.002000	0.001601	0.001355	0.001217
TOG	0.029403	0.023431	0.019575	0.017125
Diesel PM	0.000432	0.000378	0.000350	0.000346

===

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.972931

===

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002102

==

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	25 mph	30 mph	35 mph	40 mph
PM2.5	0.005377	0.005465	0.005486	0.004993

==

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.015247

=============================END=======================================

File Name:	Highway 87 2026.EF
CT-EMFAC2021 Version:	1.0.2.0
Run Date:	11/7/2023 11:32:21 AM
Area:	Santa Clara (SF)
Analysis Year:	2026
Season:	Annual

===

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.027	0.416	0.563
Truck 2	0.010	0.904	0.045
Non-Truck	0.963	0.007	0.914

===

Road Type:	Freeway		
Silt Loading Factor:	CARB	0.015 g/m2	
Precipitation Correction:	CARB	P = 63 days	N = 365 days

===

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.001192	0.001304	0.001487	0.001597	0.001597
TOG	0.015110	0.015995	0.017784	0.019101	0.019101
Diesel PM	0.000410	0.000461	0.000518	0.000521	0.000521

===

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.983682

==

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002067

==

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.002394	0.002092	0.001790	0.001790	0.001790

==

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.007290

==============================END===

File Name: Highway 880 2026.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 11/7/2023 11:33:15 AM
Area: Santa Clara (SF)
Analysis Year: 2026
Season: Annual

===

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.023	0.416	0.563
Truck 2	0.019	0.904	0.045
Non-Truck	0.958	0.007	0.914

===

Road Type:	Freeway		
Silt Loading Factor:	CARB	0.015 g/m2	
Precipitation Correction:	CARB	P = 63 days	N = 365 days

===

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	35 mph
PM2.5	0.001411
TOG	0.019940
Diesel PM	0.000413

===

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.974227

===

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002110

===

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	35 mph
PM2.5	0.005652

==

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.007764

=============================END==

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - Coleman Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2028

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	43.7	3.4	35	4,788	14,597	157,126	7.835E-10	5.777E-10	6.8	3.16
DPM_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	43.7	3.4	35	4,788	14,661	157,814	7.835E-10	5.777E-10	6.8	3.16
									Total	9,575						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00030			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and DPM Emissions - DPM_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.96%	190	1.09E-05	9	6.46%	309	1.77E-05	17	5.61%	269	1.54E-05
2	2.66%	127	7.30E-06	10	7.36%	352	2.02E-05	18	3.24%	155	8.90E-06
3	2.88%	138	7.92E-06	11	6.40%	306	1.76E-05	19	2.22%	106	6.08E-06
4	3.28%	157	9.00E-06	12	6.97%	334	1.91E-05	20	0.86%	41	2.35E-06
5	2.09%	100	5.74E-06	13	6.23%	298	1.71E-05	21	3.06%	147	8.41E-06
6	3.34%	160	9.16E-06	14	6.17%	296	1.69E-05	22	4.25%	204	1.17E-05
7	6.06%	290	1.66E-05	15	5.10%	244	1.40E-05	23	2.55%	122	6.99E-06
8	4.54%	218	1.25E-05	16	3.86%	185	1.06E-05	24	0.85%	41	2.33E-06
								Total		4,788	

2028 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.96%	190	1.09E-05	9	6.46%	309	1.78E-05	17	5.61%	269	1.55E-05
2	2.66%	127	7.33E-06	10	7.36%	352	2.03E-05	18	3.24%	155	8.94E-06
3	2.88%	138	7.95E-06	11	6.40%	306	1.76E-05	19	2.22%	106	6.11E-06
4	3.28%	157	9.04E-06	12	6.97%	334	1.92E-05	20	0.86%	41	2.37E-06
5	2.09%	100	5.77E-06	13	6.23%	298	1.72E-05	21	3.06%	147	8.45E-06
6	3.34%	160	9.20E-06	14	6.17%	296	1.70E-05	22	4.25%	204	1.17E-05
7	6.06%	290	1.67E-05	15	5.10%	244	1.41E-05	23	2.55%	122	7.02E-06
8	4.54%	218	1.25E-05	16	3.86%	185	1.06E-05	24	0.85%	41	2.34E-06
								Total		4,788	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - Coleman Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2028

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	4,788	14,597	157,126	3.11E-09	2.30E-09	2.6	1.21
PM2.5_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	4,788	14,661	157,814	3.11E-09	2.30E-09	2.6	1.21
									Total	9,575						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001204			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	55	1.25E-05	9	7.11%	341	7.76E-05	17	7.39%	354	8.06E-05
2	0.42%	20	4.56E-06	10	4.39%	210	4.79E-05	18	8.18%	392	8.92E-05
3	0.40%	19	4.41E-06	11	4.66%	223	5.09E-05	19	5.70%	273	6.22E-05
4	0.26%	12	2.84E-06	12	5.89%	282	6.42E-05	20	4.27%	205	4.66E-05
5	0.49%	24	5.37E-06	13	6.15%	295	6.71E-05	21	3.25%	156	3.55E-05
6	0.90%	43	9.82E-06	14	6.04%	289	6.58E-05	22	3.30%	158	3.60E-05
7	3.79%	181	4.13E-05	15	7.01%	336	7.65E-05	23	2.46%	118	2.69E-05
8	7.76%	372	8.47E-05	16	7.14%	342	7.79E-05	24	1.87%	89	2.04E-05
								Total		4,788	

2028 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	55	1.26E-05	9	7.11%	341	7.79E-05	17	7.39%	354	8.10E-05
2	0.42%	20	4.58E-06	10	4.39%	210	4.81E-05	18	8.18%	392	8.96E-05
3	0.40%	19	4.43E-06	11	4.66%	223	5.11E-05	19	5.70%	273	6.24E-05
4	0.26%	12	2.85E-06	12	5.89%	282	6.45E-05	20	4.27%	205	4.68E-05
5	0.49%	24	5.39E-06	13	6.15%	295	6.74E-05	21	3.25%	156	3.57E-05
6	0.90%	43	9.87E-06	14	6.04%	289	6.61E-05	22	3.30%	158	3.62E-05
7	3.79%	181	4.15E-05	15	7.01%	336	7.68E-05	23	2.46%	118	2.70E-05
8	7.76%	372	8.50E-05	16	7.14%	342	7.82E-05	24	1.87%	89	2.04E-05
								Total		4,788	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - Coleman Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2028

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	4,788	14,597	157,126	4.38E-08	3.23E-08	2.6	1.21
TEXH_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	4,788	14,661	157,814	4.38E-08	3.23E-08	2.6	1.21
									Total	9,575						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01695			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	55	1.76E-04	9	7.11%	341	1.09E-03	17	7.39%	354	1.13E-03
2	0.42%	20	6.41E-05	10	4.39%	210	6.74E-04	18	8.18%	392	1.26E-03
3	0.40%	19	6.22E-05	11	4.66%	223	7.16E-04	19	5.70%	273	8.75E-04
4	0.26%	12	3.99E-05	12	5.89%	282	9.04E-04	20	4.27%	205	6.56E-04
5	0.49%	24	7.56E-05	13	6.15%	295	9.45E-04	21	3.25%	156	5.00E-04
6	0.90%	43	1.38E-04	14	6.04%	289	9.27E-04	22	3.30%	158	5.07E-04
7	3.79%	181	5.82E-04	15	7.01%	336	1.08E-03	23	2.46%	118	3.78E-04
8	7.76%	372	1.19E-03	16	7.14%	342	1.10E-03	24	1.87%	89	2.87E-04
								Total		4,788	

2028 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	55	1.77E-04	9	7.11%	341	1.10E-03	17	7.39%	354	1.14E-03
2	0.42%	20	6.44E-05	10	4.39%	210	6.77E-04	18	8.18%	392	1.26E-03
3	0.40%	19	6.24E-05	11	4.66%	223	7.19E-04	19	5.70%	273	8.79E-04
4	0.26%	12	4.01E-05	12	5.89%	282	9.08E-04	20	4.27%	205	6.59E-04
5	0.49%	24	7.59E-05	13	6.15%	295	9.49E-04	21	3.25%	156	5.02E-04
6	0.90%	43	1.39E-04	14	6.04%	289	9.31E-04	22	3.30%	158	5.09E-04
7	3.79%	181	5.84E-04	15	7.01%	336	1.08E-03	23	2.46%	118	3.80E-04
8	7.76%	372	1.20E-03	16	7.14%	342	1.10E-03	24	1.87%	89	2.88E-04
								Total		4,788	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - Coleman Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2028

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	4,788	14,597	157,126	6.89E-08	5.08E-08	2.6	1.21
TEVAP_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	4,788	14,661	157,814	6.89E-08	5.08E-08	2.6	1.21
									Total	9,575						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.93222			
Emissions per Vehicle per Mile (g/VMT)	0.02663			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	55	2.77E-04	9	7.11%	341	1.72E-03	17	7.39%	354	1.78E-03
2	0.42%	20	1.01E-04	10	4.39%	210	1.06E-03	18	8.18%	392	1.97E-03
3	0.40%	19	9.77E-05	11	4.66%	223	1.13E-03	19	5.70%	273	1.38E-03
4	0.26%	12	6.27E-05	12	5.89%	282	1.42E-03	20	4.27%	205	1.03E-03
5	0.49%	24	1.19E-04	13	6.15%	295	1.48E-03	21	3.25%	156	7.85E-04
6	0.90%	43	2.17E-04	14	6.04%	289	1.46E-03	22	3.30%	158	7.97E-04
7	3.79%	181	9.14E-04	15	7.01%	336	1.69E-03	23	2.46%	118	5.94E-04
8	7.76%	372	1.87E-03	16	7.14%	342	1.72E-03	24	1.87%	89	4.50E-04
								Total		4,788	

2028 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	55	2.79E-04	9	7.11%	341	1.72E-03	17	7.39%	354	1.79E-03
2	0.42%	20	1.01E-04	10	4.39%	210	1.06E-03	18	8.18%	392	1.98E-03
3	0.40%	19	9.81E-05	11	4.66%	223	1.13E-03	19	5.70%	273	1.38E-03
4	0.26%	12	6.30E-05	12	5.89%	282	1.43E-03	20	4.27%	205	1.04E-03
5	0.49%	24	1.19E-04	13	6.15%	295	1.49E-03	21	3.25%	156	7.89E-04
6	0.90%	43	2.18E-04	14	6.04%	289	1.46E-03	22	3.30%	158	8.00E-04
7	3.79%	181	9.18E-04	15	7.01%	336	1.70E-03	23	2.46%	118	5.97E-04
8	7.76%	372	1.88E-03	16	7.14%	342	1.73E-03	24	1.87%	89	4.52E-04
								Total		4,788	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - Coleman Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2028

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_EB_COL	Coleman Avenue Eastbound	EB	2	1096.3	0.68	13.3	44	1.3	35	4,788	14,597	157,126	5.91E-08	4.36E-08	2.6	1.21
FUG_WB_COL	Coleman Avenue Westbound	WB	2	1101.1	0.68	13.3	44	1.3	35	4,788	14,661	157,814	5.91E-08	4.36E-08	2.6	1.21
									Total	9,575						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00547			
Road Dust - Emissions per Vehicle (g/VMT)	0.01530			
otal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02287			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_COL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	55	2.38E-04	9	7.11%	341	1.47E-03	17	7.39%	354	1.53E-03
2	0.42%	20	8.66E-05	10	4.39%	210	9.09E-04	18	8.18%	392	1.70E-03
3	0.40%	19	8.39E-05	11	4.66%	223	9.66E-04	19	5.70%	273	1.18E-03
4	0.26%	12	5.39E-05	12	5.89%	282	1.22E-03	20	4.27%	205	8.86E-04
5	0.49%	24	1.02E-04	13	6.15%	295	1.27E-03	21	3.25%	156	6.74E-04
6	0.90%	43	1.87E-04	14	6.04%	289	1.25E-03	22	3.30%	158	6.84E-04
7	3.79%	181	7.85E-04	15	7.01%	336	1.45E-03	23	2.46%	118	5.10E-04
8	7.76%	372	1.61E-03	16	7.14%	342	1.48E-03	24	1.87%	89	3.87E-04
								Total		4,788	

2028 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_COL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	55	2.39E-04	9	7.11%	341	1.48E-03	17	7.39%	354	1.54E-03
2	0.42%	20	8.69E-05	10	4.39%	210	9.13E-04	18	8.18%	392	1.70E-03
3	0.40%	19	8.42E-05	11	4.66%	223	9.71E-04	19	5.70%	273	1.19E-03
4	0.26%	12	5.41E-05	12	5.89%	282	1.23E-03	20	4.27%	205	8.90E-04
5	0.49%	24	1.02E-04	13	6.15%	295	1.28E-03	21	3.25%	156	6.77E-04
6	0.90%	43	1.87E-04	14	6.04%	289	1.26E-03	22	3.30%	158	6.87E-04
7	3.79%	181	7.88E-04	15	7.01%	336	1.46E-03	23	2.46%	118	5.12E-04
8	7.76%	372	1.62E-03	16	7.14%	342	1.49E-03	24	1.87%	89	3.88E-04
								Total		4,788	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - W Hedding St
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2028

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)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	31.7	3.4	35	2,394	10,086	108,569	5.401E-10	3.982E-10	6.8	3.16
DPM_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	31.7	3.4	35	2,394	10,079	108,486	5.401E-10	3.982E-10	6.8	3.16
									Total	4,788						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00030			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and DPM Emissions - DPM_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.96%	95	5.18E-06	9	6.46%	155	8.44E-06	17	5.61%	134	7.33E-06
2	2.66%	64	3.48E-06	10	7.36%	176	9.63E-06	18	3.24%	78	4.24E-06
3	2.88%	69	3.77E-06	11	6.40%	153	8.37E-06	19	2.22%	53	2.90E-06
4	3.28%	79	4.29E-06	12	6.97%	167	9.11E-06	20	0.86%	21	1.12E-06
5	2.09%	50	2.74E-06	13	6.23%	149	8.15E-06	21	3.06%	73	4.01E-06
6	3.34%	80	4.36E-06	14	6.17%	148	8.07E-06	22	4.25%	102	5.56E-06
7	6.06%	145	7.93E-06	15	5.10%	122	6.67E-06	23	2.55%	61	3.33E-06
8	4.54%	109	5.94E-06	16	3.86%	92	5.04E-06	24	0.85%	20	1.11E-06
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.96%	95	5.17E-06	9	6.46%	155	8.44E-06	17	5.61%	134	7.33E-06
2	2.66%	64	3.47E-06	10	7.36%	176	9.62E-06	18	3.24%	78	4.24E-06
3	2.88%	69	3.77E-06	11	6.40%	153	8.36E-06	19	2.22%	53	2.89E-06
4	3.28%	79	4.29E-06	12	6.97%	167	9.10E-06	20	0.86%	21	1.12E-06
5	2.09%	50	2.73E-06	13	6.23%	149	8.14E-06	21	3.06%	73	4.00E-06
6	3.34%	80	4.36E-06	14	6.17%	148	8.07E-06	22	4.25%	102	5.55E-06
7	6.06%	145	7.92E-06	15	5.10%	122	6.66E-06	23	2.55%	61	3.33E-06
8	4.54%	109	5.94E-06	16	3.86%	92	5.04E-06	24	0.85%	20	1.11E-06
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - W Hedding St
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2028

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	2,394	10,086	108,569	2.15E-09	1.58E-09	2.6	1.21
PM2.5_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	2,394	10,079	108,486	2.15E-09	1.58E-09	2.6	1.21
									Total	4,788						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001204			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	5.97E-06	9	7.11%	170	3.70E-05	17	7.39%	177	3.84E-05
2	0.42%	10	2.17E-06	10	4.39%	105	2.28E-05	18	8.18%	196	4.25E-05
3	0.40%	10	2.10E-06	11	4.66%	112	2.42E-05	19	5.70%	136	2.96E-05
4	0.26%	6	1.35E-06	12	5.89%	141	3.06E-05	20	4.27%	102	2.22E-05
5	0.49%	12	2.56E-06	13	6.15%	147	3.20E-05	21	3.25%	78	1.69E-05
6	0.90%	22	4.68E-06	14	6.04%	144	3.14E-05	22	3.30%	79	1.72E-05
7	3.79%	91	1.97E-05	15	7.01%	168	3.64E-05	23	2.46%	59	1.28E-05
8	7.76%	186	4.03E-05	16	7.14%	171	3.71E-05	24	1.87%	45	9.69E-06
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	5.97E-06	9	7.11%	170	3.69E-05	17	7.39%	177	3.84E-05
2	0.42%	10	2.17E-06	10	4.39%	105	2.28E-05	18	8.18%	196	4.25E-05
3	0.40%	10	2.10E-06	11	4.66%	112	2.42E-05	19	5.70%	136	2.96E-05
4	0.26%	6	1.35E-06	12	5.89%	141	3.06E-05	20	4.27%	102	2.22E-05
5	0.49%	12	2.55E-06	13	6.15%	147	3.19E-05	21	3.25%	78	1.69E-05
6	0.90%	22	4.67E-06	14	6.04%	144	3.13E-05	22	3.30%	79	1.71E-05
7	3.79%	91	1.97E-05	15	7.01%	168	3.64E-05	23	2.46%	59	1.28E-05
8	7.76%	186	4.03E-05	16	7.14%	171	3.71E-05	24	1.87%	45	9.69E-06
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - W Hedding St
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2028

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	2,394	10,086	108,569	3.02E-08	2.23E-08	2.6	1.21
TEXH_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	2,394	10,079	108,486	3.02E-08	2.23E-08	2.6	1.21
									Total	4,788						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01695			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	8.41E-05	9	7.11%	170	5.20E-04	17	7.39%	177	5.41E-04
2	0.42%	10	3.06E-05	10	4.39%	105	3.21E-04	18	8.18%	196	5.98E-04
3	0.40%	10	2.96E-05	11	4.66%	112	3.41E-04	19	5.70%	136	4.17E-04
4	0.26%	6	1.90E-05	12	5.89%	141	4.31E-04	20	4.27%	102	3.13E-04
5	0.49%	12	3.60E-05	13	6.15%	147	4.50E-04	21	3.25%	78	2.38E-04
6	0.90%	22	6.59E-05	14	6.04%	144	4.41E-04	22	3.30%	79	2.41E-04
7	3.79%	91	2.77E-04	15	7.01%	168	5.13E-04	23	2.46%	59	1.80E-04
8	7.76%	186	5.68E-04	16	7.14%	171	5.22E-04	24	1.87%	45	1.36E-04
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	8.40E-05	9	7.11%	170	5.20E-04	17	7.39%	177	5.40E-04
2	0.42%	10	3.05E-05	10	4.39%	105	3.21E-04	18	8.18%	196	5.98E-04
3	0.40%	10	2.96E-05	11	4.66%	112	3.41E-04	19	5.70%	136	4.17E-04
4	0.26%	6	1.90E-05	12	5.89%	141	4.30E-04	20	4.27%	102	3.12E-04
5	0.49%	12	3.60E-05	13	6.15%	147	4.50E-04	21	3.25%	78	2.38E-04
6	0.90%	22	6.58E-05	14	6.04%	144	4.41E-04	22	3.30%	79	2.41E-04
7	3.79%	91	2.77E-04	15	7.01%	168	5.13E-04	23	2.46%	59	1.80E-04
8	7.76%	186	5.67E-04	16	7.14%	171	5.22E-04	24	1.87%	45	1.36E-04
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - W Hedding St
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2028

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	2,394	10,086	108,569	4.75E-08	3.50E-08	2.6	1.21
TEVAP_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	2,394	10,079	108,486	4.75E-08	3.50E-08	2.6	1.21
									Total	4,788						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.93222			
Emissions per Vehicle per Mile (g/VMT)	0.02663			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	1.32E-04	9	7.11%	170	8.18E-04	17	7.39%	177	8.50E-04
2	0.42%	10	4.80E-05	10	4.39%	105	5.04E-04	18	8.18%	196	9.40E-04
3	0.40%	10	4.65E-05	11	4.66%	112	5.36E-04	19	5.70%	136	6.55E-04
4	0.26%	6	2.99E-05	12	5.89%	141	6.77E-04	20	4.27%	102	4.91E-04
5	0.49%	12	5.66E-05	13	6.15%	147	7.07E-04	21	3.25%	78	3.74E-04
6	0.90%	22	1.03E-04	14	6.04%	144	6.94E-04	22	3.30%	79	3.79E-04
7	3.79%	91	4.35E-04	15	7.01%	168	8.06E-04	23	2.46%	59	2.83E-04
8	7.76%	186	8.92E-04	16	7.14%	171	8.21E-04	24	1.87%	45	2.14E-04
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	1.32E-04	9	7.11%	170	8.17E-04	17	7.39%	177	8.49E-04
2	0.42%	10	4.80E-05	10	4.39%	105	5.04E-04	18	8.18%	196	9.40E-04
3	0.40%	10	4.65E-05	11	4.66%	112	5.36E-04	19	5.70%	136	6.55E-04
4	0.26%	6	2.99E-05	12	5.89%	141	6.76E-04	20	4.27%	102	4.91E-04
5	0.49%	12	5.65E-05	13	6.15%	147	7.07E-04	21	3.25%	78	3.74E-04
6	0.90%	22	1.03E-04	14	6.04%	144	6.93E-04	22	3.30%	79	3.79E-04
7	3.79%	91	4.35E-04	15	7.01%	168	8.05E-04	23	2.46%	59	2.83E-04
8	7.76%	186	8.91E-04	16	7.14%	171	8.20E-04	24	1.87%	45	2.14E-04
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips - W Hedding St
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2028

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_EB_HED	W Hedding St Eastbound	EB	1	1044.4	0.65	9.7	32	1.3	35	2,394	10,086	108,569	4.08E-08	3.01E-08	2.6	1.21
FUG_WB_HED	W Hedding St Westbound	WB	1	1043.6	0.65	9.7	32	1.3	35	2,394	10,079	108,486	4.08E-08	3.01E-08	2.6	1.21
									Total	4,788						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00547			
Road Dust - Emissions per Vehicle (g/VMT)	0.01530			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02287			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_HED

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	1.13E-04	9	7.11%	170	7.02E-04	17	7.39%	177	7.30E-04
2	0.42%	10	4.12E-05	10	4.39%	105	4.33E-04	18	8.18%	196	8.07E-04
3	0.40%	10	4.00E-05	11	4.66%	112	4.60E-04	19	5.70%	136	5.63E-04
4	0.26%	6	2.57E-05	12	5.89%	141	5.81E-04	20	4.27%	102	4.22E-04
5	0.49%	12	4.86E-05	13	6.15%	147	6.07E-04	21	3.25%	78	3.21E-04
6	0.90%	22	8.89E-05	14	6.04%	144	5.96E-04	22	3.30%	79	3.26E-04
7	3.79%	91	3.74E-04	15	7.01%	168	6.92E-04	23	2.46%	59	2.43E-04
8	7.76%	186	7.66E-04	16	7.14%	171	7.05E-04	24	1.87%	45	1.84E-04
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_HED

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	1.13E-04	9	7.11%	170	7.02E-04	17	7.39%	177	7.29E-04
2	0.42%	10	4.12E-05	10	4.39%	105	4.33E-04	18	8.18%	196	8.07E-04
3	0.40%	10	3.99E-05	11	4.66%	112	4.60E-04	19	5.70%	136	5.62E-04
4	0.26%	6	2.56E-05	12	5.89%	141	5.81E-04	20	4.27%	102	4.22E-04
5	0.49%	12	4.85E-05	13	6.15%	147	6.07E-04	21	3.25%	78	3.21E-04
6	0.90%	22	8.88E-05	14	6.04%	144	5.95E-04	22	3.30%	79	3.26E-04
7	3.79%	91	3.74E-04	15	7.01%	168	6.92E-04	23	2.46%	59	2.43E-04
8	7.76%	186	7.65E-04	16	7.14%	171	7.04E-04	24	1.87%	45	1.84E-04
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips -W Taylor Street
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2028

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	43.7	3.4	35	2,394	9,158	98,578	3.918E-10	2.889E-10	6.8	3.16
DPM_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	43.7	3.4	35	2,394	9,293	100,026	3.918E-10	2.889E-10	6.8	3.16
									Total	4,788						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00030			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and DPM Emissions - DPM_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.96%	95	3.41E-06	9	6.46%	155	5.56E-06	17	5.61%	134	4.83E-06
2	2.66%	64	2.29E-06	10	7.36%	176	6.34E-06	18	3.24%	78	2.79E-06
3	2.88%	69	2.48E-06	11	6.40%	153	5.51E-06	19	2.22%	53	1.91E-06
4	3.28%	79	2.82E-06	12	6.97%	167	6.00E-06	20	0.86%	21	7.39E-07
5	2.09%	50	1.80E-06	13	6.23%	149	5.37E-06	21	3.06%	73	2.64E-06
6	3.34%	80	2.87E-06	14	6.17%	148	5.32E-06	22	4.25%	102	3.66E-06
7	6.06%	145	5.22E-06	15	5.10%	122	4.39E-06	23	2.55%	61	2.19E-06
8	4.54%	109	3.91E-06	16	3.86%	92	3.32E-06	24	0.85%	20	7.31E-07
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.96%	95	3.46E-06	9	6.46%	155	5.64E-06	17	5.61%	134	4.90E-06
2	2.66%	64	2.32E-06	10	7.36%	176	6.43E-06	18	3.24%	78	2.83E-06
3	2.88%	69	2.52E-06	11	6.40%	153	5.59E-06	19	2.22%	53	1.94E-06
4	3.28%	79	2.87E-06	12	6.97%	167	6.09E-06	20	0.86%	21	7.50E-07
5	2.09%	50	1.83E-06	13	6.23%	149	5.44E-06	21	3.06%	73	2.68E-06
6	3.34%	80	2.92E-06	14	6.17%	148	5.39E-06	22	4.25%	102	3.71E-06
7	6.06%	145	5.30E-06	15	5.10%	122	4.46E-06	23	2.55%	61	2.22E-06
8	4.54%	109	3.97E-06	16	3.86%	92	3.37E-06	24	0.85%	20	7.41E-07
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips -W Taylor Street
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2028

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	2,394	9,158	98,578	1.56E-09	1.15E-09	2.6	1.21
PM2.5_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	2,394	9,293	100,026	1.56E-09	1.15E-09	2.6	1.21
									Total	4,788						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001204			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	3.93E-06	9	7.11%	170	2.43E-05	17	7.39%	177	2.53E-05
2	0.42%	10	1.43E-06	10	4.39%	105	1.50E-05	18	8.18%	196	2.80E-05
3	0.40%	10	1.38E-06	11	4.66%	112	1.60E-05	19	5.70%	136	1.95E-05
4	0.26%	6	8.89E-07	12	5.89%	141	2.01E-05	20	4.27%	102	1.46E-05
5	0.49%	12	1.68E-06	13	6.15%	147	2.11E-05	21	3.25%	78	1.11E-05
6	0.90%	22	3.08E-06	14	6.04%	144	2.07E-05	22	3.30%	79	1.13E-05
7	3.79%	91	1.30E-05	15	7.01%	168	2.40E-05	23	2.46%	59	8.42E-06
8	7.76%	186	2.66E-05	16	7.14%	171	2.44E-05	24	1.87%	45	6.38E-06
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	3.99E-06	9	7.11%	170	2.47E-05	17	7.39%	177	2.57E-05
2	0.42%	10	1.45E-06	10	4.39%	105	1.52E-05	18	8.18%	196	2.84E-05
3	0.40%	10	1.41E-06	11	4.66%	112	1.62E-05	19	5.70%	136	1.98E-05
4	0.26%	6	9.02E-07	12	5.89%	141	2.04E-05	20	4.27%	102	1.48E-05
5	0.49%	12	1.71E-06	13	6.15%	147	2.14E-05	21	3.25%	78	1.13E-05
6	0.90%	22	3.13E-06	14	6.04%	144	2.10E-05	22	3.30%	79	1.15E-05
7	3.79%	91	1.31E-05	15	7.01%	168	2.43E-05	23	2.46%	59	8.55E-06
8	7.76%	186	2.69E-05	16	7.14%	171	2.48E-05	24	1.87%	45	6.48E-06
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips -W Taylor Street
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2028

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	2,394	9,158	98,578	2.19E-08	1.62E-08	2.6	1.21
TEXH_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	2,394	9,293	100,026	2.19E-08	1.62E-08	2.6	1.21
									Total	4,788						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01695			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	5.54E-05	9	7.11%	170	3.43E-04	17	7.39%	177	3.56E-04
2	0.42%	10	2.01E-05	10	4.39%	105	2.11E-04	18	8.18%	196	3.94E-04
3	0.40%	10	1.95E-05	11	4.66%	112	2.25E-04	19	5.70%	136	2.75E-04
4	0.26%	6	1.25E-05	12	5.89%	141	2.84E-04	20	4.27%	102	2.06E-04
5	0.49%	12	2.37E-05	13	6.15%	147	2.96E-04	21	3.25%	78	1.57E-04
6	0.90%	22	4.34E-05	14	6.04%	144	2.91E-04	22	3.30%	79	1.59E-04
7	3.79%	91	1.82E-04	15	7.01%	168	3.38E-04	23	2.46%	59	1.19E-04
8	7.76%	186	3.74E-04	16	7.14%	171	3.44E-04	24	1.87%	45	8.99E-05
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	5.62E-05	9	7.11%	170	3.48E-04	17	7.39%	177	3.61E-04
2	0.42%	10	2.04E-05	10	4.39%	105	2.14E-04	18	8.18%	196	4.00E-04
3	0.40%	10	1.98E-05	11	4.66%	112	2.28E-04	19	5.70%	136	2.79E-04
4	0.26%	6	1.27E-05	12	5.89%	141	2.88E-04	20	4.27%	102	2.09E-04
5	0.49%	12	2.40E-05	13	6.15%	147	3.01E-04	21	3.25%	78	1.59E-04
6	0.90%	22	4.40E-05	14	6.04%	144	2.95E-04	22	3.30%	79	1.61E-04
7	3.79%	91	1.85E-04	15	7.01%	168	3.43E-04	23	2.46%	59	1.20E-04
8	7.76%	186	3.79E-04	16	7.14%	171	3.49E-04	24	1.87%	45	9.12E-05
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips -W Taylor Street
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2028

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	2,394	9,158	98,578	3.44E-08	2.54E-08	2.6	1.21
TEVAP_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	2,394	9,293	100,026	3.44E-08	2.54E-08	2.6	1.21
									Total	4,788						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.93222			
Emissions per Vehicle per Mile (g/VMT)	0.02663			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	8.70E-05	9	7.11%	170	5.38E-04	17	7.39%	177	5.59E-04
2	0.42%	10	3.16E-05	10	4.39%	105	3.32E-04	18	8.18%	196	6.19E-04
3	0.40%	10	3.06E-05	11	4.66%	112	3.53E-04	19	5.70%	136	4.31E-04
4	0.26%	6	1.97E-05	12	5.89%	141	4.46E-04	20	4.27%	102	3.24E-04
5	0.49%	12	3.72E-05	13	6.15%	147	4.66E-04	21	3.25%	78	2.46E-04
6	0.90%	22	6.82E-05	14	6.04%	144	4.57E-04	22	3.30%	79	2.50E-04
7	3.79%	91	2.87E-04	15	7.01%	168	5.31E-04	23	2.46%	59	1.86E-04
8	7.76%	186	5.87E-04	16	7.14%	171	5.41E-04	24	1.87%	45	1.41E-04
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	8.83E-05	9	7.11%	170	5.46E-04	17	7.39%	177	5.68E-04
2	0.42%	10	3.21E-05	10	4.39%	105	3.37E-04	18	8.18%	196	6.28E-04
3	0.40%	10	3.11E-05	11	4.66%	112	3.58E-04	19	5.70%	136	4.38E-04
4	0.26%	6	2.00E-05	12	5.89%	141	4.52E-04	20	4.27%	102	3.28E-04
5	0.49%	12	3.78E-05	13	6.15%	147	4.73E-04	21	3.25%	78	2.50E-04
6	0.90%	22	6.92E-05	14	6.04%	144	4.64E-04	22	3.30%	79	2.54E-04
7	3.79%	91	2.91E-04	15	7.01%	168	5.39E-04	23	2.46%	59	1.89E-04
8	7.76%	186	5.96E-04	16	7.14%	171	5.49E-04	24	1.87%	45	1.43E-04
								Total		2,394	

Guadalupe Gardens, San Jose, CA - Off-Site Residential
Operational Trips -W Taylor Street
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2028

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_EB_TAY	West Taylor Street Eastbound	EB	2	687.8	0.43	13.3	44	1.3	35	2,394	9,158	98,578	2.96E-08	2.18E-08	2.6	1.21
FUG_WB_TAY	West Taylor Street Westbound	WB	2	697.9	0.43	13.3	44	1.3	35	2,394	9,293	100,026	2.96E-08	2.18E-08	2.6	1.21
									Total	4,788						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00547			
Road Dust - Emissions per Vehicle (g/VMT)	0.01530			
otal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02287			

Emisson Factors from CT-EMFAC2021

2028 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_TAY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	28	7.47E-05	9	7.11%	170	4.62E-04	17	7.39%	177	4.80E-04
2	0.42%	10	2.72E-05	10	4.39%	105	2.85E-04	18	8.18%	196	5.32E-04
3	0.40%	10	2.63E-05	11	4.66%	112	3.03E-04	19	5.70%	136	3.71E-04
4	0.26%	6	1.69E-05	12	5.89%	141	3.83E-04	20	4.27%	102	2.78E-04
5	0.49%	12	3.20E-05	13	6.15%	147	4.00E-04	21	3.25%	78	2.12E-04
6	0.90%	22	5.85E-05	14	6.04%	144	3.92E-04	22	3.30%	79	2.15E-04
7	3.79%	91	2.46E-04	15	7.01%	168	4.56E-04	23	2.46%	59	1.60E-04
8	7.76%	186	5.04E-04	16	7.14%	171	4.64E-04	24	1.87%	45	1.21E-04
								Total		2,394	

2028 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_TAY

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	7.58E-05	9	7.11%	170	4.69E-04	17	7.39%	177	4.88E-04
2	0.42%	10	2.76E-05	10	4.39%	105	2.89E-04	18	8.18%	196	5.40E-04
3	0.40%	10	2.67E-05	11	4.66%	112	3.08E-04	19	5.70%	136	3.76E-04
4	0.26%	6	1.71E-05	12	5.89%	141	3.88E-04	20	4.27%	102	2.82E-04
5	0.49%	12	3.25E-05	13	6.15%	147	4.06E-04	21	3.25%	78	2.15E-04
6	0.90%	22	5.94E-05	14	6.04%	144	3.98E-04	22	3.30%	79	2.18E-04
7	3.79%	91	2.50E-04	15	7.01%	168	4.63E-04	23	2.46%	59	1.62E-04
8	7.76%	186	5.12E-04	16	7.14%	171	4.71E-04	24	1.87%	45	1.23E-04
								Total		2,394	

```
          File Name:   Local Roadways 2028.EF
CT-EMFAC2021 Version:   1.0.2.0
           Run Date:   11/8/2023 2:10:36 PM
               Area:   Santa Clara (SF)
      Analysis Year:   2028
             Season:   Annual

=======================================================================

Vehicle Category        VMT Fraction          Diesel VMT Fraction     Gas VMT
Fraction
                        Across Category       Within Category         Within
Category
         Truck 1             0.017                 0.409                   0.541
         Truck 2             0.018                 0.886                   0.044
       Non-Truck             0.965                 0.006                   0.909

=======================================================================

               Road Type:       Major/Collector
     Silt Loading Factor:                  CARB         0.032 g/m2
Precipitation Correction:                  CARB         P = 63 days     N = 365 days

=======================================================================

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

       Pollutant Name        30 mph          35 mph
                PM2.5      0.001421        0.001204
                  TOG      0.020279        0.016950
            Diesel PM      0.000324        0.000303

=======================================================================

Fleet Average Running Loss Emission Factors (grams/veh-hour)

       Pollutant Name   Emission Factor
                  TOG          0.932224

=======================================================================

Fleet Average Tire Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.002102

=======================================================================

Fleet Average Brake Wear Factors (grams/veh-mile)
```

Pollutant Name	30 mph	35 mph
PM2.5	0.005450	0.005467

===

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.015304

=============================END===

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	**6/30/2023**
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x103
Email	jbauer@illingworthrodkin.com
Project Name	Guadalupe Gardens GPA
Address	
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Combined Industrial Commercial
Project Size (# of units or building square feet)	
Comments:	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A ncomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in Table B lue section only.

6. Note that a small percentage of the stationa... ...ve Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Matthew Hanson at 415-749-8733, or mhanson@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	Plant No.	Facility Name	Address	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	Project MEI: Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
1000+	2049	Central Concrete Supply Comp	790 Stockton Avenue	0	0	10.475		Ready-Mix Concrete Manufacturing		2021 Dataset	0.13	0.00	0.00000	-
1000+	18409	Michael J's Body Shop	597 W Taylor St	0.00	0.00	0.00		Automotive Body, Paint, and Interior Rep		2021 Dataset	0.13	0.00	0.00013	0.0000
385	20397	Progressive Collision Repair	790 Chestnut St	0.00	0.00	0.00		Automotive Body, Paint, and Interior Rep		2021 Dataset	0.44	0.00	0.00044	0.0000
1000+	22253	Andrew G's Bodyshop Inc	920 Chestnut St	0.00	0.00	0.00		Automotive Body, Paint, and Interior Rep		2021 Dataset	0.13	0.00	0.00000	0.0000
580	110396	7- Eleven Inc. #37953	890 Coleman Ave	16.15	0.07	0.00		Gasoline Stations with Convenience Store		2021 Dataset	0.04	0.45	0.12000	0.0000
1000+	200131	JMS Auto Body	660 COLEMAN AVE	0	0	0		Automotive Body, Paint, and Interior Rep		2021 Dataset	0.13	0.00	0.00000	0.0000
1000+	10969	Central Concrete Supply Comp	889 Stockton Street	0	0	1.042		Construction Machinery Manufacturing		2021 Dataset	0.13	0.00	0.000	0.1375

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.

8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010.
    Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	**1500000**	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	**700**	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	**8800**	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	**San Jose**	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	**175**	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	**175**	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	**175**	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	**EVR Phase I & EVR Phase II**	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	**yes**	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	**0.45**
Max Worker Cancer Risk (chances/million)	**0.04**
Chronic HI	**0.00**
Acute HI	**0.12**

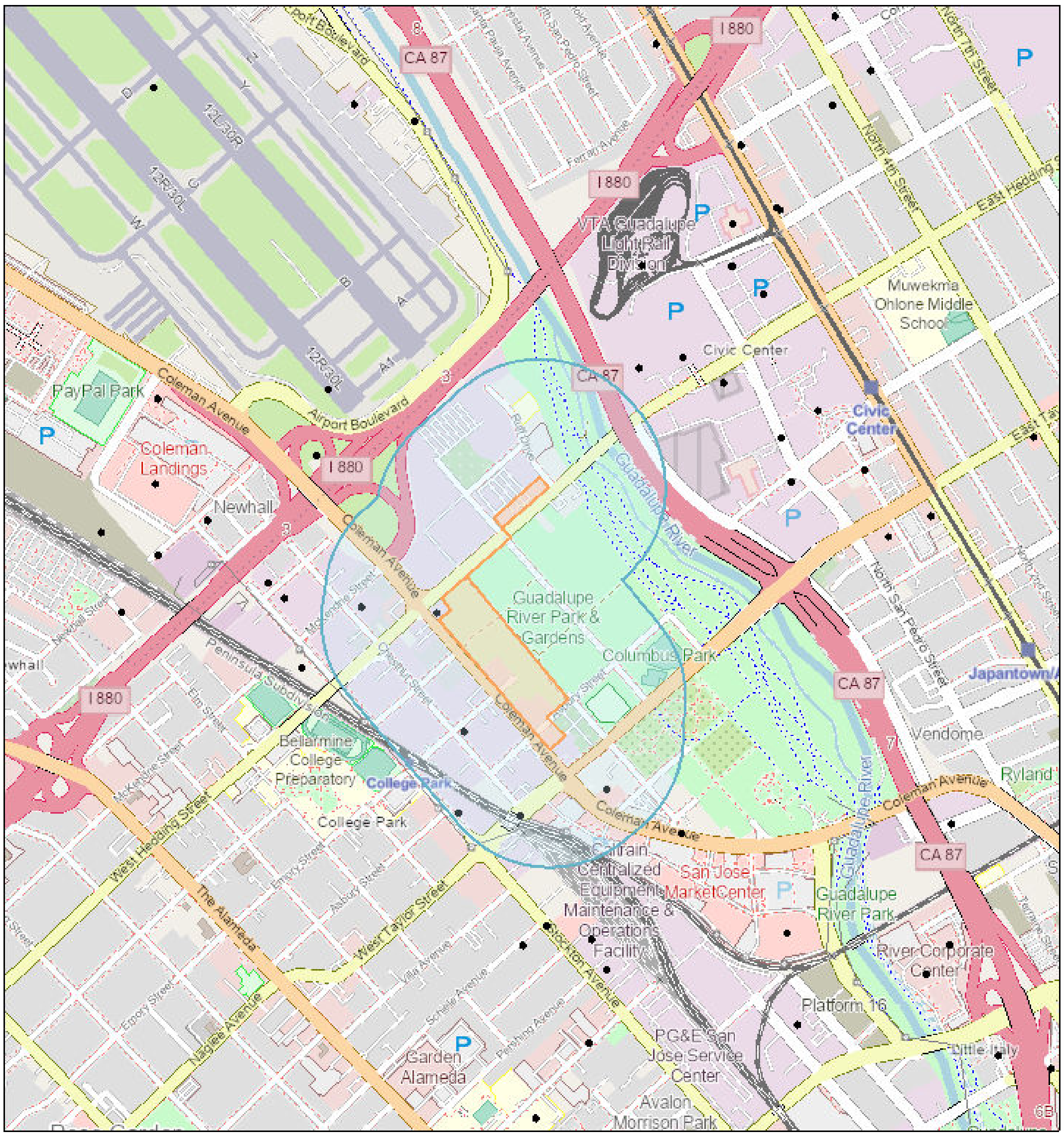
11/17/2023 8:23 PM

Screening Report

Area of Interest (AOI) Information

Area : 9,667,296.89 ft²

Jun 30 2023 14:57:16 Pacific Daylight Time



Permitted Stationary Sources

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	6	N/A	N/A

Permitted Stationary Sources

#	Facility_I	Facility_N	Address	City	State
1	2049	Central Concrete Supply Company Inc	790 Stockton Avenue	San Jose	CA
2	18409	Michael J's Body Shop	597 W Taylor St	San Jose	CA
3	20397	Progressive Collision Repair	790 Chestnut St	San Jose	CA
4	22253	Andrew G's Bodyshop Inc	920 Chestnut St	San Jose	CA
5	110396	7- Eleven Inc. #37953	890 Coleman Ave	San Jose	CA
6	200131	JMS Auto Body	660 COLEMAN AVE	San Jose	CA

#	Zip	County	Latitude	Longitude	Details
1	95126	Santa Clara	37.341499	-121.914076	*No Data*
2	95110	Santa Clara	37.341436	-121.912254	*No Data*
3	95110	Santa Clara	37.343403	-121.913909	*No Data*
4	95110	Santa Clara	37.346302	-121.916900	*No Data*
5	95110	Santa Clara	37.346169	-121.914703	Gas Dispensing Facility
6	95110	Santa Clara	37.342060	-121.909749	*No Data*

#	NAICS	NAICS_Sect	NAICS_Subs	NAICS_Indu	Cancer_Ris
1	327320	Manufacturing	Nonmetallic Mineral Product Manufacturing	Ready-Mix Concrete Manufacturing	0.000000
2	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000
3	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000
4	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000
5	447110	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	16.154000
6	811121	Other Services (except Public Administration)	Repair and Maintenance	Automotive Body, Paint, and Interior Repair and Maintenance	0.000000

#	Chronic_Ha	PM25	Count
1	0.000000	10.475000	1
2	0.001000	0.000000	1
3	0.001000	0.000000	1
4	0.000000	0.000000	1
5	0.070000	0.000000	1
6	0.000000	0.000000	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.