AVENUES WORLD SCHOOL AIR QUALITY AND COMMUNITY HEALTH RISK ASSESSMENT

San José, California

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Introduction

The purpose of this report is to address air quality impacts and greenhouse gas (GHG) emissions, including an evaluation of community risk from toxic air contaminants (TACs), associated with the Avenues World school project located at 502-570 Meridian Avenue. The air quality impacts and GHG emissions would be associated with demolition of the existing uses at the site, construction of the new buildings and infrastructure, and operation of the project. Air pollutant and GHG emissions associated with construction and operation of the project were predicted using models. In addition, the potential construction and operation health risk impacts to nearby sensitive receptors and the impact of existing toxic air contaminant (TAC) sources affecting the proposed school were evaluated. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).

While not a CEQA issue, the project involves the construction of a new school that would include school children, considered sensitive receptors, which could be exposed to substantial emissions of air pollutants and TACs from the existing environment. BAAQMD prescribes measures to address this impact such that students at new schools would not be exposed to adverse air quality conditions.

Project Description

The project applicant, Avenues: The World School, proposes to develop a private pre-kindergarten through 12th grade school campus on the site. The school would support approximately 2,744 students and 480 faculty and staff. The campus development would include both adaptive re-use of existing buildings and new construction, resulting in a total of seven buildings including 128 classrooms, a theater, gymnasium and aquatic center, administrative space, and a sports field. Full build-out of the proposed project would include up to approximately 450,000 square feet (sf) of new school facilities, which would be constructed in four phases. Note that construction includes a combination of new construction and renovations of existing buildings with site improvements.

The first phase (Phase I) would include the adaptive reuse of 550 and 570 Meridian Avenue from their current use as commercial office buildings to their new use as education facilities, and it would include the demolition of 1401 Parkmoor Avenue and the remaining warehouses along Race Street. The first phase would also include the new construction of a portion of the gymnasium building, and the construction of the portal structure between 550 and 570 Meridian Avenue. The total approximate area for this phase is 184,000 gross sf (excluding the existing parking structure). The sports field would be built during this first phase.

The second phase (Phase II) of construction would be the addition of an academic building that is planned to be to the east of the sports field. This building would be approximately 120,000 gross sf.

The third phase (Phase III) of construction would be an expansion of the gymnasium facilities to include an aquatic center as well as the theater building. The total above grade area for this phase of construction is approximately 87,000 gross sf.

The fourth and final phase (Phase IV) of construction would include an academic building on the southeast corner of the site totaling approximately 67,000 gross sf of above grade area.

Construction of the project is planned in four phases as described in **Error! Reference source not found.** of the DEIR and listed below. The project proponent estimates the full buildout over approximately ten-to fifteen years, estimated to begin in August 2020.

- Phase I construction would occur from Summer 2020 to Fall 2021,
- Phase II construction would occur from January 2023 to Summer 2024,
- Phase III construction would occur from January 2027 or 2028 to Summer 2028 or 2029,
- Phase IV construction would occur from January 2032 or 2033 to Summer 2033 or 2034.

The commencement dates provided for Phases III and IV are the proponents' estimates and would be subject to market conditions and student enrollment. Each construction phase is estimated to last for approximately a year.

However, for the purposes of air quality impacts, an aggressive five-year construction schedule is assumed. This represents the worst-case scenario and a more conservative approach. The construction schedule for this analysis assumes continuous construction over a shorter period of time (construction would occur from 2020 to 2025, with a full-buildout year of 2026), which would result in a higher exposure to construction emissions, unlike the estimated proposed schedule that assumes long break between all the phases.

Setting

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

Air Pollutants

Ozone

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

Carbon Monoxide

Carbon monoxide (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

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 contribute to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection. On January 22, 2010 the EPA strengthened the health-based NAAQS for NO_2.

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.

Particulate Matter

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

Lead

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

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

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

Toxic Air Contaminants (TACs)

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

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

Table 1. Health Effects of Air Pollutants

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

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

Regional Air Quality

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

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

Local Climate and Air Quality

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

Climate and Meteorology

During the summer, mostly clear skies result in 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. Wind patterns are influenced by local terrain, with a northwesterly sea breeze typically developing during the daytime. Winds are usually stronger in the spring and summer. Rainfall amounts are modest, ranging from 13 inches in the lowlands to 20 inches in the hills.

Air Pollution Potential

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

Attainment Status Designations

The CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

An "unclassified" designation signifies that data does not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

Table 2 shows the State and Federal standards for criteria pollutants and provides a summary of the attainment status for the San Francisco Bay Area with respect to National and State ambient air quality standards.

Table 2. San Francisco Bay Area Attainment Status

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment
	1-Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	Annual Mean	0.030 ppm (57 mg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
	1-Hour	0.18 ppm (338 µg/m^3)	Attainment	0.100 ppm	Unclassified
Ozone (O_3)	8-Hour	0.07 ppm (137 µg/m^3)	Nonattainment	0.070 ppm	Nonattainment
	1-Hour	0.09 ppm (180 µg/m^3)	Nonattainment	Not Applicable	Not Applicable
Suspended Particulate Matter (PM_{10})	Annual Mean	20 µg/m^3	Nonattainment	Not Applicable	Not Applicable
	24-Hour	50 µg/m^3	Nonattainment	150 µg/m^3	Unclassified
Suspended Particulate Matter ($PM_{2.5}$)	Annual Mean	12 µg/m^3	Nonattainment	12 µg/m^3	Attainment
	24-Hour	Not Applicable	Not Applicable	35 µg/m^3	Nonattainment
Sulfur Dioxide (SO_2)	Annual Mean	Not Applicable	Not Applicable	80 µg/m^3 (0.03 ppm)	Attainment
	24-Hour	0.04 ppm (105 µg/m^3)	Attainment	365 µg/m^3 (0.14 ppm)	Attainment
	1-Hour	0.25 ppm (655 µg/m^3)	Attainment	0.075 ppm (196 µg/m^3)	Attainment

Lead (Pb) is not listed in the above table because it has been in attainment since the 1980s.
ppm = parts per million, mg/m^3 = milligrams per cubic meter, µg/m^3 = micrograms per cubic meter
Source: Bay Area Air Quality Management District, 2017. *Air Quality Standards and Attainment Status.* January 5.

Existing Air Pollutant Levels

BAAQMD monitors air pollution at various sites within the Bay Area. The closest official monitoring station is located in Sunnyvale at 910 Ticonderoga Drive. However, this station only measures O_3 and TOC. The closest air monitoring station that monitored O_3, CO, NO, NO_2, PM_{10}, and $PM_{2.5}$ over the past 5 years (2013 through 2017) is in the City of San Jose approximately 5 miles southwest of the project site (158 Jackson Street). The data shows that during the past few years, the project area has exceeded the State and/or federal O_3, PM_{10}, and $PM_{2.5}$ ambient air quality standards. Table 3 lists air quality trends in data collected at the San Jose Station for the past 5

years (2013 through 2017) and published by the BAAQMD, which is the most recent time-period available.

Table 3. Ambient Air Quality Concentrations from 2013 through 2017

Pollutant	Standard	2013	2014	2015	2016	2017
Ozone						
Max 1-hr concentration		93 ppb	89 ppb	94 ppb	87 ppb	121 ppb
No. days exceeded: State	90 ppb	0	0	0	0	3
Max 8-hr concentration		79 ppb	66 ppb	81 ppb	66 ppb	98 ppb
No. days exceeded: State	70 ppb	1	0	4	0	4
Federal	70 ppb	1	0	4	0	4
Carbon Monoxide						
Max 1-hr concentration		3.1 ppm	2.4 ppm	2.4 ppm	2.0 ppm	2.1 ppm
No. days exceeded: State	20 ppm	0	0	0	0	0
Federal	35 ppm	0	0	0	0	0
Max 8-hr concentration		2.5 ppm	1.9 ppm	1.8 ppm	1.4 ppm	1.8 ppm
No. days exceeded: State	9.0 ppm	0	0	0	0	0
Federal	9 ppm	0	0	0	0	0
PM_{10}						
Max 24-hr concentration		58 µg/m^3	55 µg/m^3	58 µg/m^3	41 µg/m^3	70 µg/m^3
No. days exceeded: State	50 µg/m^3	5	1	1	0	6
Federal	150 µg/m^3	0	0	0	0	0
Max annual concentration		22.3 µg/m^3	19.9 µg/m^3	22.0 µg/m^3	18.5 µg/m^3	21.6 µg/m^3
No. days exceeded: State	20 µg/m^3	-	-	-	-	-
$PM_{2.5}$						
Max 24-hr concentration		57.7 µg/m^3	60.4 µg/m^3	49.4 µg/m^3	22.6µg/m^3	49.7 µg/m^3
No. days exceeded: Federal	35 µg/m^3	6	2	2	0	6
Annual Concentration		12.4µg/m^3	8.4 µg/m^3	10.0 µg/m^3	8.4 µg/m^3	9.5 µg/m^3
No. days exceeded: State	12 µg/m^3	-	-	-	-	-
Federal	12.0 µg/m^3	-	-	-	-	-
Nitrogen Dioxide						
Max 1-hr concentration		59 ppb	58 ppb	49 ppb	51 ppb	68 ppb
No. days exceeded: State	180 ppb	0	0	0	0	0
Federal	100 ppb	0	0	0	0	0
Annual Concentration		15 ppb	13 ppb	13 ppb	11 ppb	12 ppb
No. days exceeded: State	30 ppb	-	-	-	-	-
Federal	53 ppb	-	-	-	-	-

Source: Bay Area Air Quality Management District, 2019

REGULATORY FRAMEWORK

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

Both the EPA and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the public with a reasonable margin of safety. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each criteria pollutant.

Federal Air Quality Regulations

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

The FCAA required EPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). Federal standards include both primary and secondary standards. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.[1] The Federal Clean Air Act Amendments of 1990 (FCAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA has responsibility to review all state SIPs to determine conformity with the mandates of the FCAAA and determine if implementation will achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area which imposes additional control measures. Failure to submit an approvable SIP or to implement the Plan within the mandated timeframe may result in the application of sanctions on transportation funding and stationary air pollution sources in the air basin.

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

[1] U.S. Environmental Protection Agency, 2013. Website: www.epa.gov/air/criteria.html. February.

quality attainment Plan for the region. Conformity with the SIP requirements would satisfy the FCAA requirements.

State Air Quality Regulations

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

CARB is also responsible for developing and implementing air pollution control plans to achieve and maintain the NAAQS. CARB is primarily responsible for statewide pollution sources and produces a major part of the SIP. Local air districts provide additional strategies for sources under their jurisdiction. CARB combines this data and submits the completed SIP to the EPA.
Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing CAAQS (which in many cases are more stringent than the NAAQS), determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, and off-road vehicles.

California Clean Air Act

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

California Air Resources Board Handbook

In 1998, CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[2] CARB subsequently developed an Air Quality and Land Use Handbook[3] (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.

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

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

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

Bay Area Air Quality Management District (BAAQMD)

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

Clean Air Plan

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

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

BAAQMD CARE Program

The Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area. The program examines TAC emissions from point sources, area sources and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program is being implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement

programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses will be used to focus emission reduction measures in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. The BAAQMD has identified six communities as impacted: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo Alto, and Eastern San Francisco. Note that this project is within a CARE community (i.e. San José).

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 recommended best practices that can be implemented to reduce exposures. The information is provided as recommendations to develop policies and implementing measures in city or county General Plans, neighborhood or specific plans, land use development ordinances, or into projects.

BAAQMD California Environmental Quality Act (CEQA) Air Quality Guidelines

The BAAQMD *CEQA Air Quality Guidelines*[4] were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of their *CEQA Guidelines*. In May 2011, the updated BAAQMD *CEQA Air Quality Guidelines* were amended to include a risk and hazards threshold for new receptors and modify procedures for assessing impacts related to risk and hazard impacts. A recent update to the *Guidelines* was published in May 2017.

BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The order requires the BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds (Cal. Court of Appeal, First Appellate District, Case Nos. A135335 & A136212). CBIA sought review by the California Supreme Court on three issues, including the appellate court's decision to uphold the BAAQMD's adoption of the thresholds, and the Court granted review on just one: Under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users of a proposed project? In December 2015, the Supreme Court determined that an analysis of the impacts of the environment on a project – known as "CEQA-in-reverse" – is only required under two limited circumstances: (1) when a statute provides an express legislative directive to consider such

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

impacts; and (2) when a proposed project risks exacerbating environmental hazards or conditions that already exist (Cal. Supreme Court Case No. S213478). The Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's ruling.

BAAQMD Sensitive Land Use Analysis - School Facilities

Additionally, BAAQMD has specific guidance regarding new school projects. Projects that include purchase of a school site or construction of a secondary or elementary school must have a negative declaration or environmental impact report (EIR) prepared that meets all requirements described in the California Public Resources Code (21151.8) and in the CEQA Guidelines 15186 (a) and (c) published by the Association of Environmental Professionals. The District does not recommend the use of their stationary source, highway, and roadway screening analysis tools. Instead a site-specific analysis should be conducted. The CEQA guidelines are described below.

CEQA establishes a special requirement for certain school projects, as well as certain projects near schools, to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances will be carefully examined and disclosed in a negative declaration or EIR, and that the lead agency will consult with other agencies in this regard.

When the project involves the purchase of a school site or the construction of a secondary or elementary school by a school district, the negative declaration or EIR prepared for the project shall not be adopted or certified unless:

(1) The negative declaration, mitigated negative declaration, or EIR contains sufficient information to determine whether the property is:

- (A) The site of a current or former hazardous waste or solid waste disposal facility and, if so, whether wastes have been removed.
- (B) A hazardous substance release site identified by the Department of Toxic Substances Control in a current list adopted pursuant to Section 25356 of the Health and Safety Code for removal or remedial action pursuant to Chapter 6.8 (commencing with Section 25300) of Division 20 of the Health and Safety Code.
- (C) The site of one or more buried or above ground pipelines which carry hazardous substances, acutely hazardous materials, or hazardous wastes, as defined in Division 20 of the Health and Safety Code. This does not include a natural gas pipeline used only to supply the school or neighborhood.
- (D) Within 500 feet of the edge of the closest traffic lane of a freeway or other busy traffic corridor.

Note that the project is the development of a private school that is within 500 feet of busy roadways. This analysis reports the community risk impacts from that roadways that may affect the incoming students that would be introduced by the project with site-specific dispersion modeling.

BAAQMD Rules and Regulations

Combustion equipment associated with the proposed project that includes new diesel engines to power generators and possibly new natural gas-fired boilers would establish new sources of particulate matter and gaseous emissions. Emissions would primarily result from the testing of the

emergency backup generators, operation of the boilers for space and water heating and some minor emissions from cooling towers. The project would also generate emissions from vehicles traveling to and from the project.

Certain emission sources would be subject to BAAQMD Regulations and Rules. The District's rules and regulations that may apply to the project include:

- Regulation 2 – Permits
  - Rule 2-1: General Requirements
  - Rule 2-2: New Source Review
- Regulation 6 – Particulate Matter and Visible Emissions
- Regulation 9 – Inorganic Gaseous Pollutants
  - Rule 9-1: Sulfur Dioxide
  - Rule 9-7: Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, And Process Heaters
  - Rule 9-8: Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines

Permits

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

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

Rule 2-1 lists sources that are exempt from permitting. At the proposed facility, the diesel fuel storage tanks are expected to be 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 Authority to Construct (ATC) or Permit to Operate (PTO) apply best available control technology (BACT) to any new or modified source that results in an increase in emissions and has emissions of precursor organic compounds, non-precursor organic compounds, NOx, SO_2, PM_{10}, or CO of 10.0 pounds or more per highest day. Based on the estimated emissions from the proposed project, BACT will be required for NOx emissions from the diesel-fueled generator engines.

BACT for Diesel Generator Engines

Since the generators will be used exclusively for emergency use during involuntary loss of power, the BACT 2 levels listed for IC compression engines in the BAAQMD BACT Guidelines would apply. The BACT 2 NOx emission factor limit is 6.9 grams per horsepower hour (g/hp-hr). The

project's proposed engines will have emissions lower than the BACT 2 level and, as such, will comply with the BACT requirements.

Offsets

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

Prohibitory Rules

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

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

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

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

Stationary Diesel Airborne Toxic Control Measure (ACTM)

The BAAQMD administers the State's ACTM for Stationary Diesel engines (section 93115, title 17 CA Code of Regulations). The project's engines will be new stationary emergency standby diesel engines larger than 50 hp. Since the engines will have an uncontrolled PM emission factor of less than 0.15 g/hp-hour and operate no more than 50 hours per year, the engines will comply with the requirements of the ACTM.

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 are applicable to the proposed project:

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

Applicable Policies – Air Pollutant Emission Reduction

MS-10.1 Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (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.

Applicable Goals – Toxic Air Contaminants

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

Applicable Policies – Toxic Air Contaminants

MS-11.1 Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.

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-11.4 Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.

Actions – Toxic Air Contaminants

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.

Applicable Goals – Construction Air Emissions

Goal MS-13 Minimize air pollutant emissions during demolition and construction activities

Applicable Policies – Construction Air Emissions

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.

Applicable Actions – Construction Air Emissions

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.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. The closest existing sensitive receptors are residences of an apartment complex east of the project site across Race Street. There are also two schools south of the project site across Parkmoor Avenue that serve students in 5th through 12th grade – Downtown College Prep and Basis Independent Silicon Valley. In addition, the project would introduce new sensitive receptors to the area with the students ranging from 2-18 years old.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 *CEQA Air Quality Guidelines*. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld. BAAQMD updated the *CEQA Air Quality Guidelines* in 2017 to include the latest significance thresholds that were used in this analysis are summarized in Table 1. These thresholds were used to evaluate effects of the project (i.e. construction and operation) and TAC sources upon the existing offsite residential receptors and the incoming school students that would be introduced by the project.

Table 1. Air Quality Significance Thresholds

Criteria Air Pollutant and Precursors	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	**Thresholds for Projects that are New Sources or New Sensitive Receptors**		
	Single Sources Within 1,000-foot Zone of Influence	**Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)**	
Excess Cancer Risk	>10 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3	>0.8 µg/m^3	
Greenhouse Gas Emissions			
Land Use Projects – direct and indirect emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually or 4.6 metric tons per capita (for 2020) and adjusted to 2.6 metric tons per capita (for 2030)* AND 10,000 metric tons annually for sources permitted by BAAQMD		

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases. *BAAQMD does not have a recommended post-2020 GHG threshold.

AIR QUALITY IMPACTS AND MITIGATION MEASURES

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

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

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

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the project assuming full build-out conditions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The model output from CalEEMod is included as *Attachment 2*.

Construction Period Emissions

CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. A construction build-out scenario, including equipment list and schedule, was based on CalEEMod default information (including default acreage for Phases II-IV) for a project of this type and size. The approximate acreage for Phase I was used since the project applicant did provide information regarding the anticipated schedule for Phase I. Anticipated start and end dates for Phases II-IV are currently unknown but the project applicant noted that the phases are not expected to overlap. Therefore, it was assumed that each phase would be consecutive with no breaks in between each phase. The project applicant also provided information regarding demolition volumes and earthwork volumes for Phases III and IV. Table 2 shows the proposed project land uses and project information that was entered into CalEEMod. Figure 1 shows the conceptual site plan each proposed phase.

Table 2. Project Construction Information Entered into CalEEMod

Phase	Type of Construction	Land Use	Construction Hauling Information
Phase I	Adaptive reuse of 550 and 570 Meridian Avenue and construction of a portion of the gymnasium building	3,226-sf entered as "Elementary School" on 8.4-acres	Demolition of 210,204-sf of existing buildings (approximately 150,204-sf of warehouse structures and 60,000-sf of office space) 9,465-cy of soil exported during grading
		23,236-sf entered as "Health Club"	
Phase II	Construction of academic building 6	117,454-sf entered as "Elementary School"	None
Phase III	Construction of academic building 5 and expansion of the gymnasium	128,226-sf entered as "Elementary School"	43,166-cy of soil exported during grading
		60,952-sf entered as "Health Club"	
Phase IV	Construction of academic building 7	75,844-sf entered as "Elementary School"	7,028-cy of soil exported during grading
Square Feet = SF, Cubic Yard = CY			

Figure 1. Conceptual Site Plan for Avenues World School by Phase

Computed Construction Emissions

Based on the provided construction start date and the CalEEMod construction schedule default values, the total construction period would be five (5) years or more, estimated to begin in July 2020. Each construction phase is estimated to last for approximately a year.. The construction assumptions assumed this activity would not be continuous through the approximate five-plus-year period. There were an estimated 1,068 construction workdays. Average daily emissions were computed by dividing the total construction emissions by the total number of construction days. Table 3 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted construction period emissions would not exceed the BAAQMD significance thresholds. *Mitigation Measure AQ-1* is still recommended to keep construction emissions *less-than-significant*.

Table 3. Construction Period Emissions

Scenario	**ROG**	**NOx**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Total construction emissions (tons)	3.12 tons	9.26 tons	0.39 tons	0.37 tons
Average daily emissions (pounds)[1]	5.84 lbs./day	17.35 lbs./day	0.73 lbs./day	0.69 lbs./day
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	**No**	**No**	**No**	**No**
[1]Assumes 1,068 workdays				

Operational Period Emissions

Operational air emissions from the project would be generated primarily from traffic associated with employees, students, and parents of students. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was also used to estimate emissions from operation of the proposed project assuming full build-out.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. This analysis assumed that the project would be fully built-out and operating in the year 2026. The project could be partially operating in 2022; however, emissions would be highest when fully operational.

Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. The traffic trip generation estimates for the proposed school, developed by Hexagon Transportation Consultants, were used.[5] The Traffic Analysis found that the project would create a vehicle miles traveled impact with respect to transportation impacts. Therefore, a Transportation Demand Management (TDM) program that includes a 17 percent student trip reduction and a 3% staff trip reduction would be required and were applied to the project trip generation forecasts. These were assumed to be

[5] Hexagon Transportation Consultants, Inc. 2019. *Avenues the World School Traffic Analysis*. October.

weekday trips generation rates. Saturday and Sunday trip rates were computed based on the default CalEEMod ratio of Saturday to weekday and Sunday to weekday adjustments. The TDM reduction was not applied to the weekend trip generation rates for high school students. Additionally, the trip length for students was changed from 7.30 miles to 10.46 miles based on a vehicle miles traveled (VMT) technical memorandum prepared by the traffic consultant.[6] Table 4 lists the trip generation rates entered into CalEEMod.

Table 4. Traffic Trip Generation Rates for Avenues World School

Land Use	Size (Students)	Daily Trips	New Daily Trips with TDM Reduction	Adjusted Weekday Rate
Toddler	24	98	81	3.39
ELC Program	272	1,112	923	3.39
Kindergarten	160	658	546	3.41
Grade 1-5	880	3,617	3002	3.41
Grade 6-8	528	2,170	1801	3.41
Grade 9-12	880	1,786	1482	1.68

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. Indirect emissions from electricity were computed in CalEEMod. The model has a default rate of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on PG&E's 2008 emissions rate. The rate was adjusted to account for PG&E's projected 2020 CO_2 intensity rate. This 2020 rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. The derived 2020 rate for PG&E was estimated at 290 pounds of CO_2 per megawatt of electricity delivered.[7]

Stationary Equipment

The project would include two emergency generators powered by diesel engines. Based on generator information provided by the applicant, one generator would be 105 kilo watts (kW), 166 horsepower (hp) and the other generator would be 80 kW, 126 hp. The CalEEMod modeling assumed 50 hours of annual operation for testing and maintenance purposes per year.

Other Inputs

Water/wastewater use were changed to 100% aerobic conditions to represent wastewater treatment plant conditions.

Existing Uses

The project would replace existing office and warehouse uses. The types and size of these uses were modeled using default historical energy demand, solid waste generation and water usage. Traffic estimates were based on traffic counts performed for the project traffic study by Hexagon Transportation Consultants. The daily trip rate was estimated to be 3.24 trips per 1,000 square feet,

[6] Hexagon Transportation Consultants, Inc., 2019. *Proposed VMT Analysis Methodology for the Avenues School in San Jose, CA Technical Memorandum*. August.
[7] Pacific Gas & Electric, 2015. *Greenhouse Gas Emission Factors: Guidance for PG&E Customers*. November.

the Saturday rate was 0.72 trips per 1,000 square feet, and the Sunday rate was 0.31 trips per 1,000 square feet. Note that these counts reflect the level of use at that time and not the potential traffic generation from the land use.

Computed Operational Emissions

As shown in Table 5, operational emissions would not exceed the BAAQMD significance thresholds. This would be considered a *less-than-significant* impact.

Table 5. Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2026 Project Operational Emission (tons)	3.49 tons	4.69 tons	5.16 tons	1.43 tons
2026 Existing Operational Emissions (tons)	1.13 tons	0.94 tons	0.94 tons	0.27 tons
Net Emissions (tons)	2.36 tons	3.75 tons	4.22 tons	1.17 tons
BAAQMD Thresholds (tons /year)	***10 tons***	***10 tons***	***15 tons***	***10 tons***
Exceed Threshold?	*No*	*No*	*No*	*No*
2026 Project Operational Emissions (*pounds/day*)	12.92 lbs.	20.57 lbs.	23.13 lbs.	6.38 lbs.
BAAQMD Thresholds (pounds/day)	***54* lbs.**	***54* lbs.**	***82* lbs.**	***54* lbs.**
Exceed Threshold?	*No*	*No*	*No*	*No*
[1] Assumes 365-day operation.				

Mitigation Measure AQ-1: **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. Additional measures are identified to reduce construction equipment exhaust emissions. The contractor shall implement the following best management practices 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. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne

toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

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

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

9. Off-road equipment greater than 25 horsepower (hp) that would be operated for more than 20 hours over construction phase, including equipment from subcontractors, shall be zero emissions, OR 2) have engines that meet or exceed either EPA Tier 2 off-road emission standards; and 3) have engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS), if one is available for the equipment being used. Equipment with engines that meet Tier 4 Interim or Tier 4 Final emission standards meet this requirement; therefore, a VDECS on Tier 4 engines is not required.

   Portable diesel generators used for more than 100 hours shall be prohibited. Grid power electricity should be used to provide power at construction sites; or propane and natural gas generators may be used when grid power electricity is not feasible.

Effectiveness of Mitigation Measure AQ-1

The measures above are consistent with BAAQMD-recommended basic control measures for reducing fugitive particulate matter that are contained in the BAAQMD CEQA Air Quality Guidelines.

Impact 2: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased community risk were evaluated in two ways:

1. Increased exposure to TACs and $PM_{2.5}$ from project emissions sources (i.e. construction and operation) and
2. Exposure of new project sensitive receptors (i.e. students) to existing and future TAC and $PM_{2.5}$ emissions.[8]

Temporary project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would increase traffic in the area that would increase the air pollutant and TAC emissions in the area. In addition, the project would include the installation of emergency generators powered by diesel engines that would also have emissions of TACs and air pollutants. Project impacts to existing sensitive receptors were addressed for construction activities, operational conditions, the combined effect from construction activities and operation and the cumulative effect of the project and nearby emissions sources.

The project would introduce new sensitive receptors as daycare children and students, ranging in age from 2-to-18-years old. These sensitive receptors would be exposed to existing sources of TACs and localized air pollutants in the vicinity of the project. Therefore, the impact of the existing and new sources of TACs and $PM_{2.5}$ upon the project sensitive receptors was assessed.

Community risk impacts upon the existing and future sensitive receptors were addressed by predicting increased lifetime cancer risk, the increase in annual $PM_{2.5}$ concentrations and computing the Hazard Index (HI) for non-cancer health risks. The methodology for computing community risks impacts is contained in *Attachment 1*.

Community Risks from Project Construction

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known TAC. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issue associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. 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 $PM_{2.5}$.[9] This assessment included dispersion modeling to predict the offsite and onsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

Construction period emissions were computed using CalEEMod along with projected construction activity, as described above. The CalEEMod model provided total annual $PM_{2.5}$ exhaust emissions (assumed to be DPM) for the off-road construction equipment used for construction of the project and for the exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker

[8] Association of Environmental Professionals, 2019. "15186. School Facilities (a), (c)", *2019 CEQA California Environmental Quality Act Statute & Guidelines*. January.
[9] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

vehicles). For modeling purposes, it was assumed that emissions from on-road vehicles would occur at the construction sites. A trip length of one mile was used to represent vehicle travel while at or near the construction sites. Fugitive dust $PM_{2.5}$ emissions were also computed and included in this analysis. Table 6 below lists the DPM and fugitive dust $PM_{2.5}$ emissions predicted by the model by phase.

Table 6. Localized Project Construction Emissions of DPM and $PM_{2.5}$ (tons)

Phase	Years	Exhaust PM_{10} (considered DPM) Emissions	Fugitive Dust $PM_{2.5}$ Emissions
Phase I	2020	0.0887	0.1109
	2021	0.0787	0.00028
Phase II	2022	0.0839	0.00120
Phase III	2023	0.0876	0.0417
	2024	0.0040*	0.00006*
Phase IV	2025	0.0422	0.00915
*Includes one month of activity in 2025 (January 2025)			

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was also used to predict concentrations of DPM and $PM_{2.5}$ concentrations at existing sensitive receptors (residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[10] For each phase of construction the AERMOD modeling utilized two area sources to represent the on-site construction emissions, one for exhaust emissions and one for fugitive dust emissions. To represent the construction equipment exhaust emissions, an emission release height of 6 meters (19.7 feet) was used for the area sources. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of 2 meters (6.6 feet) was used for the area sources. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7:00 a.m. to 4:00 p.m., when the majority of construction activity would occur.

The modeling used a five-year data set (2006-2010) of hourly meteorological data from the San José International Airport that was prepared for use with the AERMOD model by BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2020-2025 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. Receptor heights of 1.5 meters (4.9 feet) and 4.5 meters (14.8 feet) were used to represent the breathing heights of residents on the first and second floor levels of homes and apartments.

Predicted Construction Health Risks

Results of this assessment indicated that the maximum exposed individual (MEI), which is the receptor with maximum impacts, was located on the second floor (i.e. 4.5-meter breathing height)

[10] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

of the Mosaic House Apartments east of the project site on Race Street. Figure 2 shows the locations where the maximum-modeled DPM and $PM_{2.5}$ concentrations occurred. Using the maximum annual modeled DPM concentrations, the maximum increased cancer risk at the location of the maximally exposed individual (MEI) was calculated using BAAQMD recommended methods. The cancer risk calculations are based on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD-recommended exposure parameters were used for the cancer risk calculations, as described in *Attachment 1*. Infant, child, and adult exposures were assumed to occur at all residences through the entire construction period.

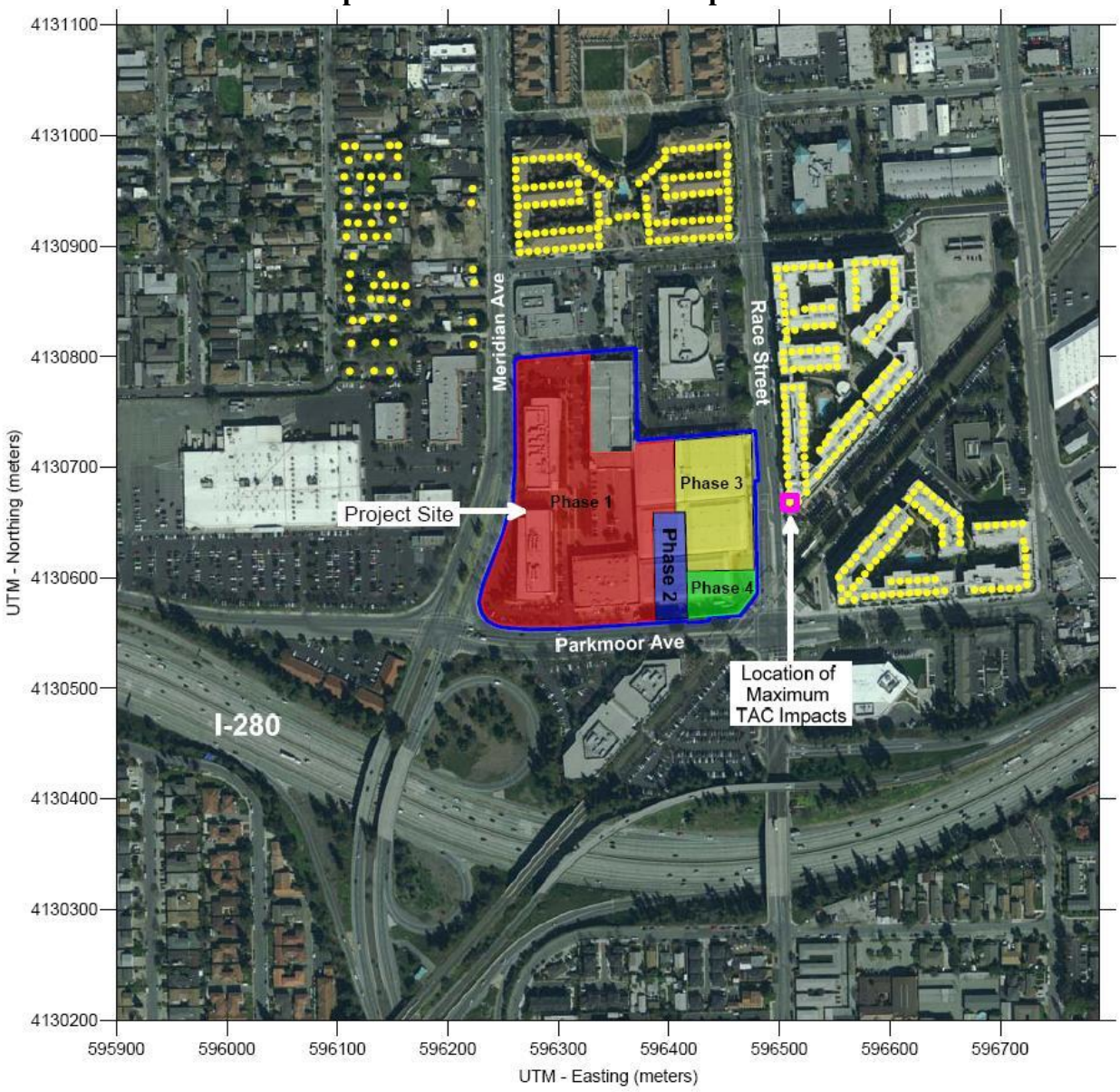
Since the project was assumed to be constructed in four phases over a five plus year period, potential health risks were evaluated in a manner that would identify the period when the maximum health impacts occur. The magnitude of the construction DPM emissions, the areas where these emissions will occur, and the relative location of sensitive receptors to the emission area will vary from year to year during construction and will affect receptors at different locations differently. Since cancer risks are greatest for infants and children due to their increased sensitivity to TAC concentrations, the time when the initial TAC exposure is assumed to occur is important to identify. That is, assuming that the initial TAC exposure occurs in the first year of construction may not result in the greatest cancer risk. An exposure beginning in a subsequent year may end up resulting in a greater overall cancer risk. Therefore, for this evaluation, cancer risks were calculated for six cases, with the initial period for exposure to construction emissions beginning in each year of construction and calculating the cancer risks from that year forward. This method ensures that maximum cancer risk impacts are identified. Based on this approach to the cancer risk assessment, the maximum cancer risk would occur for the initial exposure period beginning in 2022.

Table 7 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related construction activities affecting this receptor that is considered the MEI. As shown in Table 7 the construction risk impacts exceed the BAAQMD single-source thresholds for incremental cancer risk and but does not exceed the single-source thresholds for $PM_{2.5}$ concentrations and the hazard index (HI). *Mitigation Measure AQ-1* would reduce construction cancer risks to a level below the BAAQMD single-source thresholds.

Table 7. Construction Risk Impacts at the Offsite MEI

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction (Unmitigated)	32.4	0.28	0.03
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	***Yes***	*No*	*No*

Figure 2. Project Site, Construction Areas for Each Phase, and Locations of Offsite Sensitive Receptors and Maximum TAC Impacts



Community Risks from Project Operation – Traffic and Emergency Generators

As stated above, the project would generate more traffic within the area. In addition, the project would include emergency generators powered by diesel engines. As a result, project operation would introduce new air pollutant and TAC emissions to the area. The project's operational impacts were analyzed and assessed at the locations of the existing sensitive receptors. A 30-year period was used to evaluate the project's community risk impacts with the MEI being exposed to construction and to project operational impacts for a total of 30 years. As discussed above, the maximum construction cancer risk impacts would occur due to exposures beginning in 2022. The methodology and results are described below.

Operational Traffic

An analysis of the impacts of TACs and $PM_{2.5}$ from traffic on Meridian Avenue, Parkmoor Avenue, Race Street, and Lincoln Avenue (Project Area Roads) was conducted to evaluate potential cancer risks and $PM_{2.5}$ concentrations from these nearby roadways upon the off-site sensitive receptors. Modeling of local roadways provides more accurate results than screening methods (i.e., those provided by BAAQMD) because project specific information is used in the modeling. This includes roadway orientation with respect to receptors (i.e., where dwelling units would be located with respect to traffic), updated emission estimates (i.e., based on traffic speeds and traffic mix), and meteorological conditions near the project. This analysis utilized the computed increase in traffic that would result from the project.

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ roadway emissions in the project area using the Caltrans version of the EMFAC2017 emissions model, known as CT-EMFAC2017, and the increased local project-related traffic volumes contained in the traffic report[11]. The average daily traffic (ADT) was estimated from the background and incremental project a.m. and p.m. peak hours, assuming the ADT is ten times the average of the am- and pm-peak hour volume.

CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (e.g., TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (i.e., Santa Clara County), type of road, traffic mix assigned by CT-EMFAC2017 for the county and adjusted for the local truck mix, year of analysis, and season. A truck mix of 3.5 percent was assumed for roadway traffic based on BAAQMD recommendations for truck percentages on non-highway roads in Santa Clara County.[12] Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[13] which were then applied to the Project Area Roads traffic volumes to obtain estimated hourly traffic volumes and emissions. Average travel speeds of 30 mph were assumed for vehicles on Race Street and Parkmoor Avenue and 35 mph for vehicles on Meridian and Lincoln Avenues. For the two-hour periods during the peak a.m. and

[11] Hexagon Transportation Consultants, Inc. 2019. *Avenues the World School Traffic Analysis*. October.
[12] BAAQMD. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May
[13] The Burden output from EMFAC2007, a prior version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2014 does not include Burden type output with hour by hour traffic volume information.

p.m. traffic periods travel speeds were reduced by 10 mph.

Project operation was assumed to begin operation in 2022 or thereafter. In order to estimate TAC and $PM_{2.5}$ emissions over a 30-year exposure period (2022-2051) for calculating increased cancer risks to existing nearby residents from traffic on the Project Area Roads, the CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2022. Year 2022 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated (30 years), since, as discussed above, overall vehicle emissions will decrease in the future.

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for project traffic on Project Area Roads and using these emissions with an air quality dispersion model to calculate TAC and $PM_{2.5}$ concentrations at on-site receptor locations. Maximum increased lifetime cancer risks and annual $PM_{2.5}$ concentrations for the receptors were then computed using modeled TAC and $PM_{2.5}$ concentrations and BAAQMD methods and exposure parameters described in *Attachment 3*.

Dispersion modeling of TAC and $PM_{2.5}$ emissions was also conducted using the EPA AERMOD model. Traffic on Project Area Roads within about 1,000 feet of the project site was evaluated with the model. Vehicle traffic on these roads was modeled using a series of adjacent volume sources along a line (line volume sources), with line segments used for each of the roadway segments modeled, as shown in Figure 3. A five-year data set (2006-2010) of hourly meteorological data from the San José International Airport was used for the modeling. Other inputs to the model included road geometries, hourly traffic emissions, and receptor locations. Annual DPM and $PM_{2.5}$ concentrations for 2022 from increased project traffic on Project Area Roads were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. Receptor heights of 1.5 meters (4.9 feet) and 4.5 meters (14.7 feet) were used to represent the breathing heights of nearby residences in single-family homes and apartment buildings.

Increased lifetime cancer risks were calculated using the modeled maximum annual DPM and TOG concentrations, and BAAQMD recommended risk assessment methods and parameters described in *Attachment 1*. These methods evaluate cancer risk due to a 30-year exposure period and incorporate age sensitivity factors methods for infant (third trimester to two years of age) and children (two years of age to 16 years). The $PM_{2.5}$ concentration and non-cancerous (i.e. Hazard Index) community risk impacts were also calculated. The risk impacts from the project area roads (Meridian Avenue, Parkmoor Avenue, Race Street, and Lincoln Avenue) are listed in Table 8. The emission calculations, modelling information and results, and health risk calculations for the increased roadway traffic is provided in *Attachment 3*.

Operational Emergency Generator Modeling

It was assumed that the project would include two emergency generators. The project would use the existing 105 kilowatt (kW) emergency generator located at 550 Meridian Avenue and the existing 80 kW emergency generator at 570 Meridian Avenue. The emergency back-up generators were assumed to be powered by diesel engines (126 horsepower [hp] and 166 hp engines) to provide emergency backup power (see *Attachment 3*). Operation of the diesel generators would be a source of TAC emissions. Each generator would be operated for testing and maintenance purposes for a maximum of 50 hours per year of non-emergency operation under normal

conditions. During testing periods, the engine would typically be run for less than one hour under light engine loads. The generator engine would be required to meet U.S. EPA emission standards and consume commercially available California low sulfur diesel fuel. The emissions from the operation of the generator were calculated using the CalEEMod model.

This diesel engine 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. As part of the BAAQMD permit requirements for toxics screening analysis, the engine emissions will have to meet Best Available Control Technology for Toxics (TBACT) and pass the toxic risk screening level of less than ten in a million. The risk assessment would be prepared by BAAQMD. Depending on results, BAAQMD would set limits for DPM emissions (e.g., more restricted engine operation periods). Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered to have a significant air quality community risk impact.

To obtain an estimate of potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generators the U.S. EPA AERMOD dispersion model was used to calculate the maximum annual DPM concentration at off-site sensitive receptor locations (nearby residences) on the first and second floor levels (1.5 meters and 4.5 meters) of nearby single-family homes and apartment buildings that are currently occupied or are expected to be occupied in the near future when project operation would occur. Figure 3 shows sensitive receptor locations and the locations for the generators that were used for modeling. The modeling was conducted using a five-year data set (2006-2010) of hourly meteorological data from the San José International Airport. Stack parameters (stack diameter, exhaust flow rate and exhaust gas temperature) for modeling the generators were based on manufacturer data for the existing generators. Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day.

Increased cancer risks from use of the generators were calculated using the modeled maximum annual DPM concentrations and BAAQMD recommended risk assessment methods and parameters described in *Attachment 1*. The $PM_{2.5}$ concentration and non-cancerous (i.e. Hazard Index) health risk impacts were also calculated. The maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard index at the construction plus operation MEI from generator operation are shown in Table 8.

Total Project Health Risks – Construction Plus Operation

The combined impacts from project-related activities are the combination of construction activity, roadway traffic from project operation, and project emergency generator operation. This project impact is computed by adding the construction cancer risk for an infant and child exposure to the lifetime cancer risk for the project operational conditions for the project area roads and emergency generators at the MEI over a 30-year period. Note that the project MEI is identified as the sensitive receptor that is most affected by the project's construction and operation. Therefore, the receptor may not be the same receptor identified within the separate construction or operation analyses. In the case of the project, the sensitive receptor identified in Figure 2 as the construction MEI is also the project MEI. At this location, the MEI would be exposed to the combined cancer risks from construction and operation (includes risks from project traffic and emergency generator operation) over a 30 year period. The cancer risks from construction and operation of the project were summed together. Unlike, the increased maximum cancer risk, the annual $PM_{2.5}$ concentration, and HI risks are not additive but based on an annual maximum risk for the entirety of the project. Table 8 lists the project construction and operational risks upon the project MEI. *Mitigation Measure AQ-1 would* reduce construction cancer risks to a level below the BAAQMD single-source thresholds.

Table 8. Construction and Operation Risk Impacts at the Offsite Project MEI

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Unmitigated Project Construction	32.4 (infant-child)	0.28	0.03
Mitigated Project Construction	3.2 (infant-child)	<0.28	<0.03
Project Traffic	0.9 (child-adult)	0.04	<0.01
Project Generators	0.3 (child-adult)	<0.01	<0.01
Unmitigated Total/Maximum Project	**33.5**	**0.28**	<0.03
Mitigated Total/Maximum Project	4.4	<0.28	<0.03
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	***Yes***	*No*	*No*
Mitigated	*No*	*No*	*No*

Figure 3. Project Site, Roadway Segments Modeled, Locations of Offsite Sensitive Receptors, Onsite School Student Receptors, and Locations of Maximum TAC Impacts

Combined Impact of All TAC Sources on the Off-Site and School MEIs

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of a project site. For sensitive receptors introduced by a school, an influence area of one-fourth of a mile is used to identify TAC sources. These sources can include freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in close proximity to the roadway. For this community risk analysis, an influence area of 1,000 feet was used for the existing sensitive receptors, while a one-fourth of a mile influence area was used for the proposed future students. A review of both project areas indicates that traffic on Interstate 280, Meridian Avenue, Parkmoor Avenue, Race Street, and Lincoln Avenue would have average daily traffic (ADT) that would exceed 10,000 vehicles per day. Other nearby streets are assumed to have less than 10,000 vehicles per day. A review of BAAQMD's stationary source Google Earth map tool and online permitted stationary sources risk and hazards ArcGIS map identified a total four stationary sources within both influence areas. One source was identified within the 1,000 feet influence area, while the other three stationary sources were located beyond the 1,000 feet influence area but within the one-fourth of a mile influence area. Figure 4 shows the sources affecting the residential off-site MEI and Figure 5 shows the sources affecting the school on-site MEI.

Figure 4. Project Site and Nearby TAC and $PM_{2.5}$ Source upon the Residential MEI

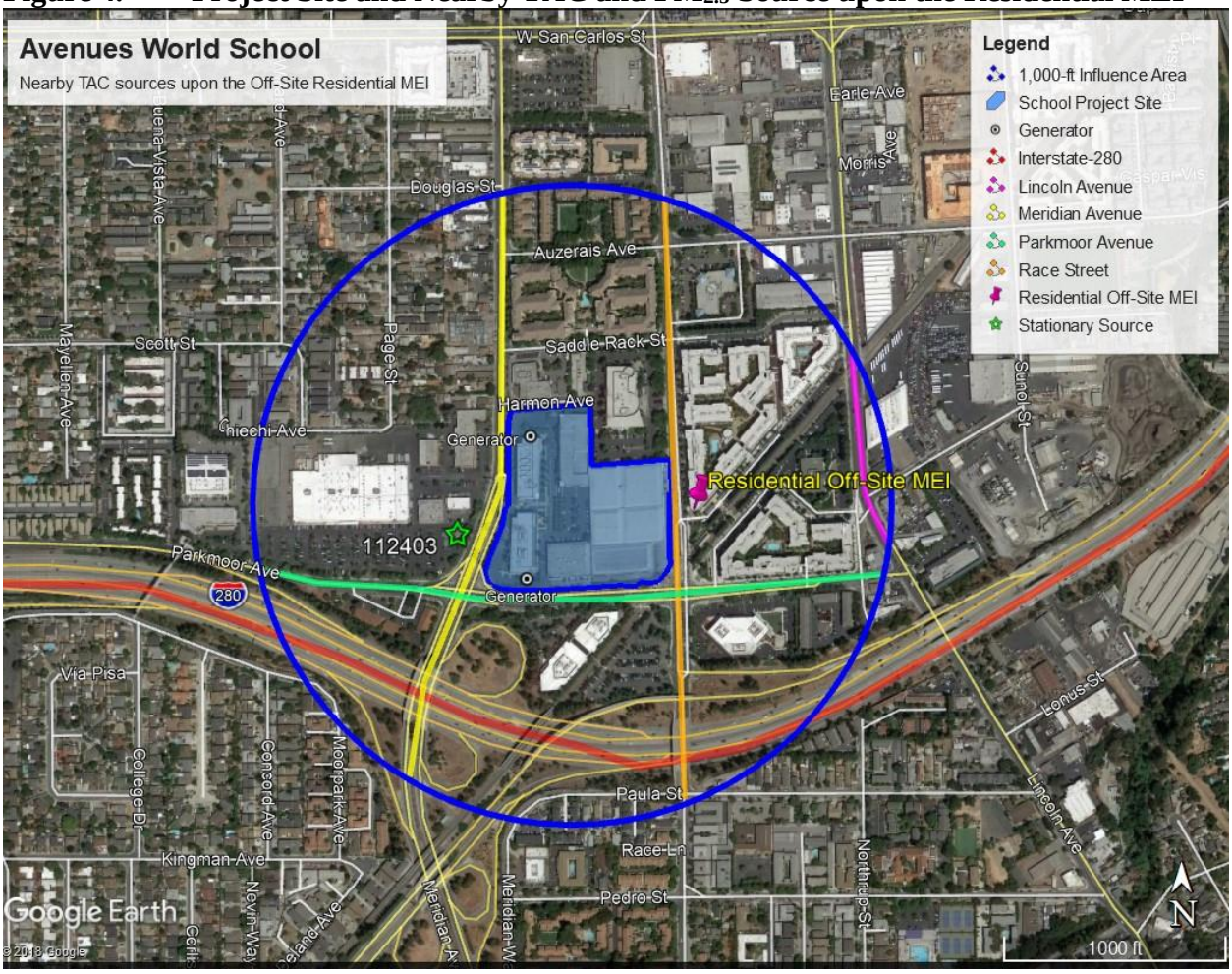
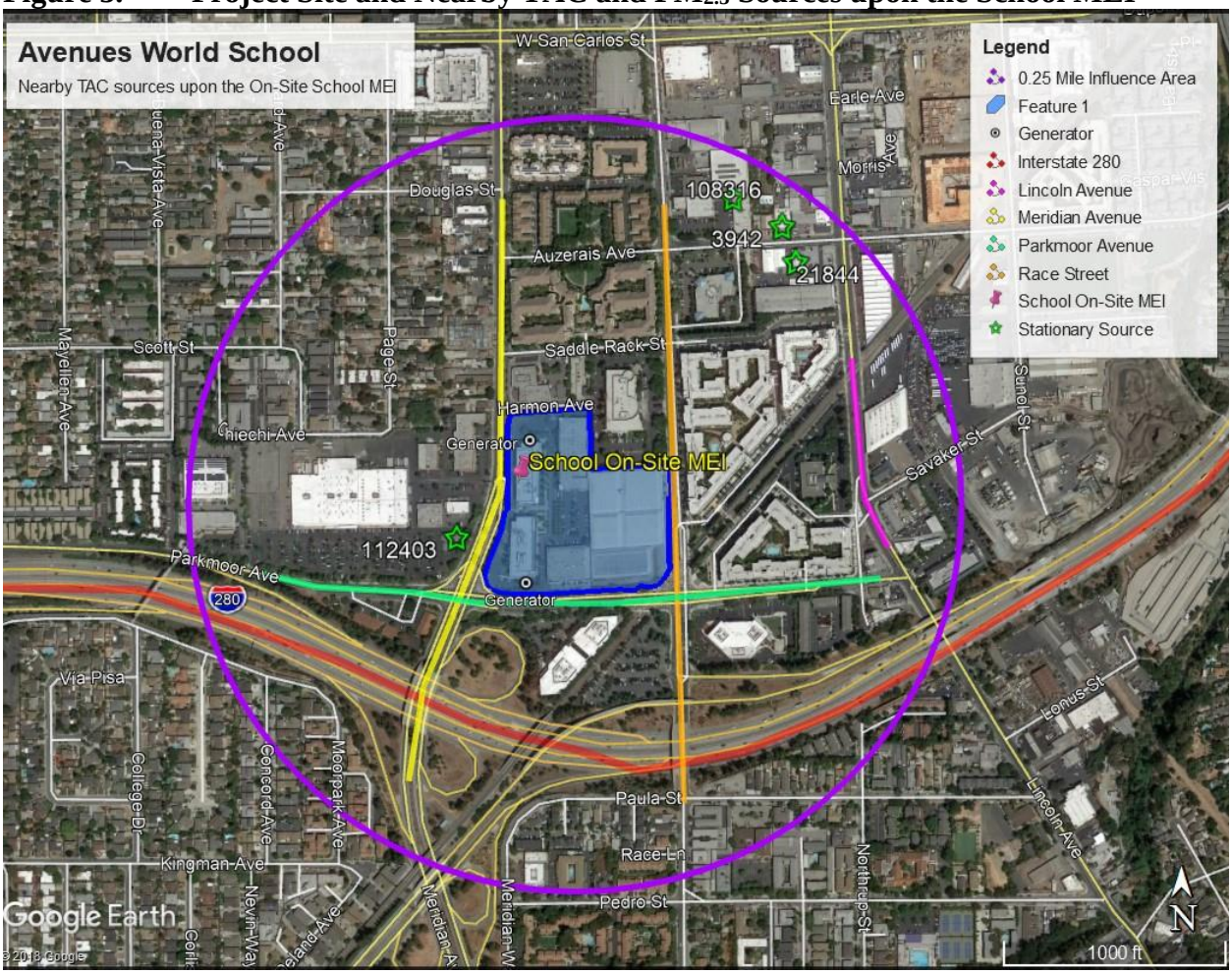


Figure 5. Project Site and Nearby TAC and $PM_{2.5}$ Sources upon the School MEI



Highways – Interstate 280

A refined analysis of the impacts of TACs and $PM_{2.5}$ to sensitive receptors is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from Interstate 280 (I-280). Impacts at sensitive receptor locations were evaluated for the new onsite school students and at the location of the offsite residential project MEI. A review of the traffic information reported by the California Department of Transportation (Caltrans) indicates that I-280 traffic includes 227,000 annual average vehicles per day that are about 1.5 percent trucks, of which 0.5 percent are considered diesel heavy duty trucks.[14]

Traffic Emissions Modeling

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on I-280 using the CARB EMFAC2014 emission factor model and the traffic mix developed from Caltrans data. DPM emissions are projected to decrease in the future and are reflected in the EMFAC2014 emissions data.

Cumulative impacts at sensitive receptors were assumed to begin in 2022 or thereafter, consistent

[14] Caltrans. 2017. *2016 Annual Average Daily Truck Traffic on the California State Highway System*

with the occurrence of maximum impacts from construction and project operation. In order to estimate TAC and $PM_{2.5}$ emissions over the 30-year cancer risk exposure period from traffic on I-280, the EMFAC2014 model was used to develop vehicle emission factors for the year 2022 using the calculated mix of cars and trucks on I-280. Year 2022 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated (30 years), since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions will decrease in the future. Default EMFAC2014 vehicle model fleet age distributions for Santa Clara County were assumed. Average daily traffic volumes truck percentages were based on Caltrans data for I-280 for 2016. Traffic volumes were assumed to increase 1 percent per year. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[15] which were then applied to the average daily traffic volumes to obtain estimated hourly traffic volumes and emissions for I-280.

Emissions of total organic gases (TOG) were also calculated for 2022 using the EMFAC2014 model. These TOG emissions were then used in modeling the organic TACs (i.e., TACs associated with motor vehicle from TOG exhaust emissions and evaporative TOG emissions). TOG emissions from exhaust and for running evaporative loses from gasoline vehicles were calculated using EMFAC2014 default model values for Santa Clara County along with the traffic volumes and vehicle mixes for the highway.

For all hours of the day, other than during peak a.m. and p.m. periods, an average speed of 65 mph was assumed for all vehicles other than trucks which were assumed to travel at a speed of 60 mph. Based on traffic data from the Santa Clara Valley Transportation Authority's 2017 Monitoring and Conformance Report, traffic speeds during the peak a.m. and p.m. periods were identified.[16] For a 2-hour period during the peak a.m. period, an average speed of 15 mph was used for northbound traffic and an average travel speed of 30 mph was used for southbound traffic. For the peak p.m. period, an average travel speed of 30 mph was used for northbound traffic and an average travel speed of 15 mph was used for southbound traffic.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the U.S. EPA AERMOD model, which is recommended by the BAAQMD for this type of analysis. North- and south-bound traffic on I-280 within about 1,000 feet of the project site was evaluated with the model. The modeling used a five-year data set (2006-2010) of hourly meteorological data from the San Jose Airport. Other inputs to the model included road geometry and elevations, hourly traffic emissions, and receptor locations and elevations.

For the modeling of the new onsite school student receptors were placed in the proposed new school buildings with 7 meter (23 feet) spacing. Receptor heights of 1.0 meters (3.3 feet) and 5.3 meters (17.3 feet) were used to represent the breathing heights of students on the first and second floor levels, respectively. A receptor at the location of offsite residential project MEI was also modeled. Figure 3 above shows the roadway links and receptor locations used in the modeling.

[15] The Burden output from EMFAC2007, CARB's previous version of the EMFAC model, was used for this since the current web-based version of EMFAC2011 does not include Burden type output with hour by hour traffic volume information.

[16] Santa Clara Valley Transportation Authority. *2016 CMP Monitoring and Conformance Report 2017.*

Computed Cancer and Non-Cancer Health Impacts

The maximum increased lifetime cancer risk and annual $PM_{2.5}$ concentration at the offsite residential project MEI receptor are shown in Table 9. The maximum cancer risk and annual $PM_{2.5}$ concentration for the new onsite school students are shown in Table 10. Cancer risks were computed using modeled TAC and $PM_{2.5}$ concentrations and the BAAQMD recommended methods and exposure parameters described in *Attachment 1*. The maximum impacts for the new school students occurred at the first-floor level of a school building adjacent to Meridian Avenue. The location where the maximum TAC and $PM_{2.5}$ impacts for the new school students and residential project MEI from I-280 traffic occurred are shown in Figure 3 above. The modeling results and health risk calculations for the receptor with the maximum cancer risk from I-280 traffic are also provided in *Attachment 3*.

Local Roadways

The same modeling methodology used to model project traffic impacts was used to predict background traffic impacts at the offsite residential project MEI and at the school student MEI. The local roadways that were identified as having over 10,000 total vehicles per day were modeled. The background traffic was estimated as: Meridian = 27,600 ADT; Parkmoor Avenue = 16,525 ADT, Race Street = 4,690 ADT, and Lincoln Avenue = 13,555 ADT. Estimated risk values for all the roadways are listed in Table 9 and 10. Note that that non-cancer hazards from all local roadways were assumed to be well below the BAAQMD thresholds. Chronic or acute HI for the roadway would be below 0.03. Details of the community risk calculations are included in *Attachment 3.*

Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Stationary Source Risk & Hazard Analysis Tool*. This mapping tool uses Google Earth and identifies the location of nearby stationary sources and their estimated risk and hazard impacts. In addition, *BAAQMD's Permitted Stationary Sources 2017* GIS website was used to locate updated nearby permitted stationary sources.[17] Four stationary sources were identified using either tool within the 1,000-foot and one-fourth of a mile influence areas. However, only one of the sources was within the 1,000-feet influence area for the project MEI. Two of the sources are gasoline stations, while the other two are auto body shops. A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. The District confirmed the presence of the identified sources in their database, provided updated risk levels, emissions and adjustments to account for new OEHHA guidance.[18] The risk values were estimated using the *BAAQMD Health Risk Calculator (Beta 4.0)*, which adjusts for distance and source type. Table 9 and 10 lists the adjusted risk values for the offsite and student MEIs. Details of the community risk calculations are included in *Attachment 4.*

Summary of Community Risk Impacts

Table 9 reports both the project and cumulative community risk impacts for the offsite residential MEI, while Table 10 lists the impacts for students at the proposed school. The project would have

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

[18] Correspondence with Areana Flores, BAAQMD, September 20, 2019.

a *significant* impact with respect to community risk caused by project construction activities, since the maximum cancer risk exceeds the single-source threshold of greater than 10.0 per million. However, with *Mitigation Measures AQ-1* this risk would be reduced to a *less-than-significant* level. Additionally, the combined annual cancer risk, annual $PM_{2.5}$ concentration, hazard risk values, which includes unmitigated and mitigated, would not exceed the cumulative threshold.

In Table 10, impacts from all existing TAC sources and future project TAC sources (i.e. emergency generators) upon the future school students are listed. With the exception of unadjusted $PM_{2.5}$ exposure, the increased cancer risk and HI risk values do not exceed the BAAQMD single-source or cumulative-source thresholds. The unadjusted single-source $PM_{2.5}$ concentration for the cumulative traffic (background plus project traffic volumes) does exceed the single-source threshold of greater than 0.3 $\mu g/m^3$. The cumulative $PM_{2.5}$ concentration also exceeds the BAAQMD cumulative threshold of greater than 0.8 $\mu g/m^3$.

Note that the $PM_{2.5}$ values were calculated using a daily exposure duration of 24 hours for 365 days a year, which is a conservative assumption. The actual exposure duration for the students would be less at 8 hours a day for 180 days a year. The adjusted $PM_{2.5}$ concentrations (which accounts for the actual exposure duration) for these same sources do not exceed the single nor the cumulative source thresholds. *Condition of Approval AQ-1 would reduce the $PM_{2.5}$ exposure from traffic to a level below the single-source-threshold.*

Table 9. Impacts from Combined Sources at Offsite Residential MEI

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Unmitigated Total/Maximum Project[1]	33.5	0.28	<0.03
Mitigated Total/Maximum Project[1]	4.4	<0.28	<0.03
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Interstate 280	0.8	0.23	<0.01
Roadways (Meridian Avenue, Parkmoor Avenue, Race Street, Lincoln Avenue)[2]	0.2	0.10	<0.01
APRO, LLC dba United Pacific #AD2207 (Plant #112403, Gasoline Station)	0.6	-	<0.01
Cumulative Total			
Unmitigated	35.1	0.61	<0.01
Mitigated	6.0	<0.61	<0.01
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold?			
Unmitigated	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*

[1]Includes project construction and operation (traffic volumes and emergency generators). [2]Background traffic volumes only. Project traffic volumes accounted for in the project risk values

Table 10. Impacts from Combined Sources at Project Student MEI

Source	Cancer Risk (per million)	Annual $PM_{2.5}$* ($\mu g/m^3$)	Hazard Index
Project Generators	0.1	<0.01 (<0.01)	<0.01
Cumulative Traffic (Meridian Avenue, Parkmoor Avenue, Race Street, Lincoln Avenue)	1.4	0.86 (0.14)	<0.01
Interstate 280 Traffic	0.2	0.21 (0.03)	<0.01
APRO, LLC dba United Pacific #AD2207 (Plant #112403, Gasoline Station)	3.2	-	0.02
Electrical Distributers (Plant #108316, Gasoline Station)	0.2	-	<0.01
City Body Repair (Plant #3942, Auto Body Shop)	-	-	<0.01
Blossom Valley Collision (Plant #21844, Auto Body Shop)	-	-	<0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Cumulative Total	5.1	1.08 (0.36)	<0.08
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold?	*No*	*Yes (No)*	*No*

* The $PM_{2.5}$ concentrations in parenthesis have been adjusted for school student exposure duration of 8 hours per day for 180 days per year. The unadjusted $PM_{2.5}$ concentrations, not shown in parenthesis, are for an exposure period of 24 hours per day for 365 days per year.

Implement Mitigation Measure AQ-1: **See description above for Mitigation Measure AQ-1**

Effectiveness of Mitigation Measure AQ-1

Project construction activities were analyzed with the assumption of Tier 4 interim equipment. With implementation of this mitigation, the on-site diesel exhaust emissions would be reduced by at least 90-percent and use of equipment that meets Tier 3 standards and is equipped with CARB VDECS would reduce emissions by 80 percent. Providing temporary line power or using equipment not powered by diesel would further reduce off-road construction emissions. As a result, impacts would be reduced to *less-than-significant* with respect to community risk caused by construction activities.

Condition of Approval AQ-1: **Include high-efficiency particulate filtration systems in school ventilation systems.**

The significant exposure for new project school receptors is judged by two effects: (1) increased cancer risk, and (2) annual $PM_{2.5}$ concentration. Exposure to annual $PM_{2.5}$ concentrations from the surrounding roadway traffic is above the threshold, while cancer risk impacts are below thresholds. Cancer risk is mostly the result of exposure to diesel particulate matter, although, gasoline vehicle exhaust contributes to this effect. Annual $PM_{2.5}$ concentrations are based on the exposure to $PM_{2.5}$ resulting from emissions attributable to truck and auto exhaust, the wearing of brakes and tires and re-entrainment of roadway dust from vehicles traveling over pavement. The modeled $PM_{2.5}$ exposure to portions of the school site drives the mitigation plan. Reducing particulate matter exposure would reduce both annual $PM_{2.5}$ exposures and cancer risk.

The project shall include the following measures to minimize long-term annual $PM_{2.5}$ exposure for new project occupants:

1. Install air filtration in the school. Air filtration devices shall be rated MERV13 or higher for all portions of the site. To ensure adequate health protection to sensitive receptors (i.e., students aged 2-to-18-years-old), this ventilation system, whether mechanical or passive, all fresh air circulated into the dwelling units shall be filtered.

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

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

Effectiveness: A system with MERV13 would achieve an 80-percent reduction[19]. Increased cancer risk and $PM_{2.5}$ exposures for MERV13 filtration cases were calculated assuming a combination of outdoor and indoor exposure. For use of MERV13 filtration systems, without the additional use of sealed, inoperable widows and outdoor exposure of three hours to ambient $PM_{2.5}$ concentrations and 21 hours of indoor exposure to filtered air was assumed. In this case, the effective control efficiency using a MERV13 filtration system is about 70 percent for $PM_{2.5}$ exposure.

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

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

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

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

Recent Regulatory Actions

Assembly Bill 32 (AB 32), California Global Warming Solutions Act (2006)

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.

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

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

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

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

SB 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 the 50 percent renewables target by 2030.

Executive Order EO-B-30-15 (2015) and SB 32 GHG Reduction Targets

In April 2015, Governor Brown signed Executive Order which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed 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*. While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

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

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

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

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

Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 MT or 4.6 MT per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate. Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.8 MT CO_2e/year/service population and a bright-line threshold of 660 MT CO_{2e}/year based on the GHG reduction goals of EO B-30-15. The service population metric of 2.6 is calculated for 2030 based the projected 2030 statewide population and employment levels[20]. The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_{2e}/year threshold.

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

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

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above within the operational period emissions. A full-build out year of 2026 was used to calculate the GHG emissions. CalEEMod output is included in *Attachment 2*.

Service Population Emissions

The project service population efficiency rate is based on the number of future students and employees. For this project, the total number of students enrolled, and staff members was provided and used to calculate the total service population. Per BAAQMD, student, teachers, and administrators can be included within the service population for a school.[21] On campus, there would be a total of 2,744 students on site at any one time and there would be a total of 480 staff members. The total service population would be 3,224 individuals.

Construction Emissions

GHG unmitigated emissions associated with construction were computed to be 1,650 MT of CO_2e for the total construction period using CalEEMod. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would

[20] Association of Environmental Professionals, 2016. *Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. April.
[21] Correspondence with Areana Flores, BAAQMD, September 20, 2019.

occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully-developed site under the proposed project. The effects from other project-specific sustainability measures were not included in this analysis. As shown in Table 11, the annual net emissions resulting from operation of the proposed project are predicted to be 4,069 MT of CO_2e for the year 2026 and 3,748 MT of CO_{2e} for the year 2030. The Service Population Emissions for the years 2026 and 2030 would be 1.7 and 1.6 MT CO_2e/year/service population, respectively.

To be considered significant, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold. The 2026 and 2030 per capita emissions do not exceed the "Substantial Progress" efficiency metric of 2.6 MT CO_2e/year/service population. Therefore, the project would have a *less-than-significant* impact regarding GHG emissions.

Table 11. Annual Project GHG Emissions (CO_2e) in Metric Tons and Per Capita

Source Category	Existing Land Use in 2026	Proposed Project in 2026	Existing Land Use in 2030	Proposed Project in 2030
Area	<1	<1	<1	<1
Energy Consumption	572	917	572	917
Mobile	788	4,424	718	4,034
Solid Waste Generation	122	252	122	252
Water Usage	63	21	63	21
Total (MT CO_2e/year)	1,546	5,614	1,476	5,225
Net Total (Mt CO_2e/year)		4,069		3,748
Significance Threshold		***660 MT CO_2e/year***		***660 MT CO_2e/year***
Service Population Emissions (MT CO_{2e}/year/service population)		1.7		1.6
Significance Threshold		***2.6 in 2026***		***2.6 in 2030***
Significant (Exceeds both thresholds)?		*No*		*No*

Supporting Documentation

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

Attachment 2 includes the CalEEMod output for project construction TAC emissions. Also included are any modeling assumptions.

Attachment 3 contains the construction and operation health risk assessment information. The Interstate 280 dispersion modeling calculations are also included within this attachment. AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 4 includes the community risk calculations from sources affecting the MEIs. BAAQMD health risk calculation files for this assessment are available upon request and would be provided in digital format.

Attachment 1: Health Risk Calculation Methodology

Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[22] These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.[23] This HRA used the 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.[24] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

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

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day). As recommended by the BAAQMD for residential exposures, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. For children at schools

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

and daycare facilities, BAAQMD recommends using the 95th percentile breathing rates. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults, a 25-year exposure period is recommended by the BAAQMD.

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

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

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

Where:

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

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

Where:

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

* An 8-hour breathing rate is used for worker exposures.

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

Parameter	*Exposure Type* →	Infant		Child		Adult
	Age Range →	3rd Trimester	0<2	2 < 9	2 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 80th Percentile Rate		273	758	631	572	261
Daily Breathing Rate (L/kg-day) 95th Percentile Rate		361	1,090	861	745	335
Inhalation Absorption Factor		1	1	1	1	1
Averaging Time (years)		70	70	70	70	70
Exposure Duration (years)		0.25	2	14	14	14*
Exposure Frequency (days/year)		350	350	350	350	350*
Age Sensitivity Factor		10	10	3	3	1
Fraction of Time at Home (FAH)		0.85-1.0	0.85-1.0	0.72-1.0	0.72-1.0	0.73*

* For worker exposures (adult) the exposure duration and frequency are 25 years 250 days/year and FAH is not applicable.

Non-Cancer Hazards

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). The HI value represents the maximum concentration at which no adverse health effects to the respiratory system are anticipated to occur. OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

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

Annual $PM_{2.5}$ Concentrations

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

Attachment 2: CalEEMod Modeling Outputs

Criteria Pollutant & TAC CalEEMod Outputs for Phased Construction

Avenues School - Phase 1 TAC - Santa Clara County, Annual

Avenues School - Phase 1 AQ

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	3.23	1000sqft	8.40	3,226.00	0
Health Club	23.24	1000sqft	0.00	23,236.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Retain existing parking structure, convert 550 & 570 Merdian Ave, construct portion of gym. Added sqft for conversion (3226) & sqft for gym (23,236). Acerage for Phase 1 estimated = 8.4-acres

Construction Phase - Default construction schedule, added a trenching phase to overlap with grading default schedule

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Trips and VMT -

Demolition - The site includes 210204 square feet of existing buildings (not including the parking structure) with approximately 150,204 square feet of warehouse structures and 60,000 square feet of office space

Grading - 9/10/2019 grading info: 9,465-cy excavated

Vehicle Trips -

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

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	9,465.00
tblLandUse	LandUseSquareFeet	3,230.00	3,226.00
tblLandUse	LandUseSquareFeet	23,240.00	23,236.00
tblLandUse	LotAcreage	0.07	8.40
tblLandUse	LotAcreage	0.53	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1818	1.9709	1.3227	3.02E-03	0.2861	0.0898	0.3759	0.1063	0.0837	0.19	0	270.9177	270.9177	0.053	0	272.2434
2021	0.2974	1.467	1.4219	2.40E-03	9.75E-03	0.0788	0.0885	2.64E-03	0.074	0.0766	0	208.116	208.116	0.0485	0	209.3281
Maximum	**0.2974**	**1.9709**	**1.4219**	**3.0200e-003**	**0.2861**	**0.0898**	**0.3759**	**0.1063**	**0.0837**	**0.1900**	**0.0000**	**270.9177**	**270.9177**	**0.0530**	**0.0000**	**272.2434**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0502	1.1146	1.4377	3.0200e-003	0.1432	6.1600e-003	0.1494	0.0295	6.1100e-003	0.0356	0.0000	270.9175	270.9175	0.0530	0.0000	272.2431
2021	0.1853	0.9510	1.5445	2.4000e-003	9.7500e-003	6.7900e-003	0.0165	2.6400e-003	6.7800e-003	9.4200e-003	0.0000	208.1157	208.1157	0.0485	0.0000	209.3279
Maximum	**0.1853**	**1.1146**	**1.5445**	**3.0200e-003**	**0.1432**	**6.7900e-003**	**0.1494**	**0.0295**	**6.7800e-003**	**0.0356**	**0.0000**	**270.9175**	**270.9175**	**0.0530**	**0.0000**	**272.2431**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.83**	**39.92**	**-8.66**	**0.00**	**48.30**	**92.32**	**64.27**	**70.51**	**91.83**	**83.12**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2020**	**9-30-2020**	1.4224	0.7613
2	**10-1-2020**	**12-31-2020**	0.7178	0.3938
3	**1-1-2021**	**3-31-2021**	0.6371	0.3836
4	**4-1-2021**	**6-30-2021**	0.6438	0.3874
5	**7-1-2021**	**9-30-2021**	0.4891	0.3687
		Highest	1.4224	0.7613

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation	Site Preparation	7/29/2020	8/11/2020	5	10	
3	Grading	Grading	8/12/2020	9/8/2020	5	20	
4	Trenching	Trenching	8/12/2020	9/8/2020	5	20	

5	Building Construction	Building Construction	9/9/2020	7/27/2021	5	230	
6	Paving	Paving	7/28/2021	8/24/2021	5	20	
7	Architectural Coating	Architectural Coating	8/25/2021	9/21/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 39,693; Non-Residential Outdoor: 13,231; Striped Parking Area: 0

OffRoad Equipment

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

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	956.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,183.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	11.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1035	0.0000	0.1035	0.0157	0.0000	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386

Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.1035**	**0.0166**	**0.1201**	**0.0157**	**0.0154**	**0.0311**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9700e-003	0.1387	0.0284	3.8000e-004	8.1000e-003	4.5000e-004	8.5500e-003	2.2300e-003	4.3000e-004	2.6600e-003	0.0000	36.4574	36.4574	1.6700e-003	0.0000	36.4991
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.7500e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0202	1.0202	3.0000e-005	0.0000	1.0209
Total	**4.4700e-003**	**0.1391**	**0.0322**	**3.9000e-004**	**9.2900e-003**	**4.6000e-004**	**9.7500e-003**	**2.5500e-003**	**4.4000e-004**	**2.9800e-003**	**0.0000**	**37.4777**	**37.4777**	**1.7000e-003**	**0.0000**	**37.5200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0466	0.0000	0.0466	3.5200e-003	0.0000	3.5200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**0.0466**	**6.2000e-004**	**0.0472**	**3.5200e-003**	**6.2000e-004**	**4.1400e-003**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9700e-003	0.1387	0.0284	3.8000e-004	8.1000e-003	4.5000e-004	8.5500e-003	2.2300e-003	4.3000e-004	2.6600e-003	0.0000	36.4574	36.4574	1.6700e-003	0.0000	36.4991
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.7500e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0202	1.0202	3.0000e-005	0.0000	1.0209
Total	**4.4700e-003**	**0.1391**	**0.0322**	**3.9000e-004**	**9.2900e-003**	**4.6000e-004**	**9.7500e-003**	**2.5500e-003**	**4.4000e-004**	**2.9800e-003**	**0.0000**	**37.4777**	**37.4777**	**1.7000e-003**	**0.0000**	**37.5200**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6121	0.6121	2.0000e-005	0.0000	0.6125
Total	**3.0000e-004**	**2.1000e-004**	**2.2500e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6121**	**0.6121**	**2.0000e-005**	**0.0000**	**0.6125**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0407**	**3.1000e-004**	**0.0410**	**0.0112**	**3.1000e-004**	**0.0115**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6121	0.6121	2.0000e-005	0.0000	0.6125

Total	**3.0000e-004**	**2.1000e-004**	**2.2500e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6121**	**0.6121**	**2.0000e-005**	**0.0000**	**0.6125**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0661	0.0000	0.0661	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0243	0.2639	0.1605	3.0000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	26.0588	26.0588	8.4300e-003	0.0000	26.2694
Total	**0.0243**	**0.2639**	**0.1605**	**3.0000e-004**	**0.0661**	**0.0127**	**0.0788**	**0.0338**	**0.0117**	**0.0455**	**0.0000**	**26.0588**	**26.0588**	**8.4300e-003**	**0.0000**	**26.2694**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9200e-003	0.1716	0.0352	4.7000e-004	0.0100	5.6000e-004	0.0106	2.7600e-003	5.3000e-004	3.2900e-003	0.0000	45.1142	45.1142	2.0600e-003	0.0000	45.1658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.7500e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0202	1.0202	3.0000e-005	0.0000	1.0209
Total	**5.4200e-003**	**0.1720**	**0.0389**	**4.8000e-004**	**0.0112**	**5.7000e-004**	**0.0118**	**3.0800e-003**	**5.4000e-004**	**3.6100e-003**	**0.0000**	**46.1344**	**46.1344**	**2.0900e-003**	**0.0000**	**46.1866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0297	0.0000	0.0297	7.6000e-003	0.0000	7.6000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.1033	0.1899	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0587	26.0587	8.4300e-003	0.0000	26.2694
Total	**5.2000e-003**	**0.1033**	**0.1899**	**3.0000e-004**	**0.0297**	**4.8000e-004**	**0.0302**	**7.6000e-003**	**4.8000e-004**	**8.0800e-003**	**0.0000**	**26.0587**	**26.0587**	**8.4300e-003**	**0.0000**	**26.2694**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9200e-003	0.1716	0.0352	4.7000e-004	0.0100	5.6000e-004	0.0106	2.7600e-003	5.3000e-004	3.2900e-003	0.0000	45.1142	45.1142	2.0600e-003	0.0000	45.1658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.7500e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0202	1.0202	3.0000e-005	0.0000	1.0209
Total	**5.4200e-003**	**0.1720**	**0.0389**	**4.8000e-004**	**0.0112**	**5.7000e-004**	**0.0118**	**3.0800e-003**	**5.4000e-004**	**3.6100e-003**	**0.0000**	**46.1344**	**46.1344**	**2.0900e-003**	**0.0000**	**46.1866**

3.5 Trenching - 2020

Unmitigated Construction On-Site

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

Off-Road	4.5400e-003	0.0452	0.0555	8.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	7.2655	7.2655	2.3500e-003	0.0000	7.3243
Total	**4.5400e-003**	**0.0452**	**0.0555**	**8.0000e-005**		**2.5000e-003**	**2.5000e-003**		**2.3000e-003**	**2.3000e-003**	**0.0000**	**7.2655**	**7.2655**	**2.3500e-003**	**0.0000**	**7.3243**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3401	0.3401	1.0000e-005	0.0000	0.3403
Total	**1.7000e-004**	**1.2000e-004**	**1.2500e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3401**	**0.3401**	**1.0000e-005**	**0.0000**	**0.3403**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3300e-003	0.0363	0.0626	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2655	7.2655	2.3500e-003	0.0000	7.3243
Total	**1.3300e-003**	**0.0363**	**0.0626**	**8.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.2655**	**7.2655**	**2.3500e-003**	**0.0000**	**7.3243**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3401	0.3401	1.0000e-005	0.0000	0.3403
Total	**1.7000e-004**	**1.2000e-004**	**1.2500e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3401**	**0.3401**	**1.0000e-005**	**0.0000**	**0.3403**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0869	0.7866	0.6908	1.1000e-003		0.0458	0.0458		0.0431	0.0431	0.0000	94.9601	94.9601	0.0232	0.0000	95.5393
Total	**0.0869**	**0.7866**	**0.6908**	**1.1000e-003**		**0.0458**	**0.0458**		**0.0431**	**0.0431**	**0.0000**	**94.9601**	**94.9601**	**0.0232**	**0.0000**	**95.5393**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5000e-004	0.0187	4.9700e-003	4.0000e-005	1.0800e-003	9.0000e-005	1.1700e-003	3.1000e-004	9.0000e-005	4.0000e-004	0.0000	4.2877	4.2877	2.0000e-004	0.0000	4.2926
Worker	1.5000e-003	1.0800e-003	0.0113	3.0000e-005	3.5800e-003	2.0000e-005	3.6000e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	3.0675	3.0675	8.0000e-005	0.0000	3.0694
Total	**2.1500e-003**	**0.0198**	**0.0163**	**7.0000e-005**	**4.6600e-003**	**1.1000e-004**	**4.7700e-003**	**1.2600e-003**	**1.1000e-004**	**1.3700e-003**	**0.0000**	**7.3551**	**7.3551**	**2.8000e-004**	**0.0000**	**7.3619**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.4474	0.7328	1.1000e-003		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	94.9600	94.9600	0.0232	0.0000	95.5392
Total	**0.0219**	**0.4474**	**0.7328**	**1.1000e-003**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**94.9600**	**94.9600**	**0.0232**	**0.0000**	**95.5392**

Mitigated Construction Off-Site

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

Vendor	6.5000e-004	0.0187	4.9700e-003	4.0000e-005	1.0800e-003	9.0000e-005	1.1700e-003	3.1000e-004	9.0000e-005	4.0000e-004	0.0000	4.2877	4.2877	2.0000e-004	0.0000	4.2926
Worker	1.5000e-003	1.0800e-003	0.0113	3.0000e-005	3.5800e-003	2.0000e-005	3.6000e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	3.0675	3.0675	8.0000e-005	0.0000	3.0694
Total	**2.1500e-003**	**0.0198**	**0.0163**	**7.0000e-005**	**4.6600e-003**	**1.1000e-004**	**4.7700e-003**	**1.2600e-003**	**1.1000e-004**	**1.3700e-003**	**0.0000**	**7.3551**	**7.3551**	**2.8000e-004**	**0.0000**	**7.3619**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1407	1.2900	1.2266	1.9900e-003		0.0709	0.0709		0.0667	0.0667	0.0000	171.4116	171.4116	0.0414	0.0000	172.4454
Total	**0.1407**	**1.2900**	**1.2266**	**1.9900e-003**		**0.0709**	**0.0709**		**0.0667**	**0.0667**	**0.0000**	**171.4116**	**171.4116**	**0.0414**	**0.0000**	**172.4454**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e-004	0.0304	8.1000e-003	8.0000e-005	1.9500e-003	7.0000e-005	2.0100e-003	5.6000e-004	6.0000e-005	6.3000e-004	0.0000	7.6673	7.6673	3.3000e-004	0.0000	7.6756
Worker	2.5100e-003	1.7400e-003	0.0186	6.0000e-005	6.4600e-003	4.0000e-005	6.5000e-003	1.7200e-003	4.0000e-005	1.7500e-003	0.0000	5.3443	5.3443	1.2000e-004	0.0000	5.3473
Total	**3.4800e-003**	**0.0322**	**0.0267**	**1.4000e-004**	**8.4100e-003**	**1.1000e-004**	**8.5100e-003**	**2.2800e-003**	**1.0000e-004**	**2.3800e-003**	**0.0000**	**13.0115**	**13.0115**	**4.5000e-004**	**0.0000**	**13.0229**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0395	0.8075	1.3227	1.9900e-003		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	171.4114	171.4114	0.0414	0.0000	172.4452
Total	**0.0395**	**0.8075**	**1.3227**	**1.9900e-003**		**6.2600e-003**	**6.2600e-003**		**6.2600e-003**	**6.2600e-003**	**0.0000**	**171.4114**	**171.4114**	**0.0414**	**0.0000**	**172.4452**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e-004	0.0304	8.1000e-003	8.0000e-005	1.9500e-003	7.0000e-005	2.0100e-003	5.6000e-004	6.0000e-005	6.3000e-004	0.0000	7.6673	7.6673	3.3000e-004	0.0000	7.6756
Worker	2.5100e-003	1.7400e-003	0.0186	6.0000e-005	6.4600e-003	4.0000e-005	6.5000e-003	1.7200e-003	4.0000e-005	1.7500e-003	0.0000	5.3443	5.3443	1.2000e-004	0.0000	5.3473
Total	**3.4800e-003**	**0.0322**	**0.0267**	**1.4000e-004**	**8.4100e-003**	**1.1000e-004**	**8.5100e-003**	**2.2800e-003**	**1.0000e-004**	**2.3800e-003**	**0.0000**	**13.0115**	**13.0115**	**4.5000e-004**	**0.0000**	**13.0229**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
Total	**4.6000e-004**	**3.2000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9848**	**0.9848**	**2.0000e-005**	**0.0000**	**0.9854**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.1004**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
Total	**4.6000e-004**	**3.2000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9848**	**0.9848**	**2.0000e-005**	**0.0000**	**0.9854**

3.8 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1402**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.6000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1313	0.1313	0.0000	0.0000	0.1314
Total	**6.0000e-005**	**4.0000e-005**	**4.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1313**	**0.1313**	**0.0000**	**0.0000**	**0.1314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1385**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.6000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1313	0.1313	0.0000	0.0000	0.1314
Total	**6.0000e-005**	**4.0000e-005**	**4.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1313**	**0.1313**	**0.0000**	**0.0000**	**0.1314**

Avenues School - Phase 1 TAC

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	3.23	1000sqft	8.40	3,226.00	0
Health Club	23.24	1000sqft	0.00	23,236.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Retain existing parking structure, convert 550 & 570 Merdian Ave, construct portion of gym. Added sqft for conversion (3226) & sqft for gym (23,236). Acerage for Phase 1 estimated = 8.4-acres

Construction Phase - Default construction schedule, added a trenching phase to overlap with grading default schedule

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Grading - No grading or site prep material provided

Demolition - The site includes 363,677 square feet of existing buildings (not including the parking structure) with approximately 150,204 square feet of warehouse structures and 213,473 square feet of office space

Vehicle Trips - Add Project Traffic Trip Gen Rates

Trips and VMT - TAC trip length of 1 mile for localized air emissions

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

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblLandUse	LandUseSquareFeet	3,230.00	3,226.00
tblLandUse	LandUseSquareFeet	23,240.00	23,236.00
tblLandUse	LotAcreage	0.07	8.40
tblLandUse	LotAcreage	0.53	0.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00

tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1724	1.7365	1.2548	2.1900e-003	0.3364	0.0887	0.4251	0.1109	0.0827	0.1936	0.0000	191.7921	191.7921	0.0503	0.0000	193.0485
2021	0.2949	1.4537	1.4022	2.2800e-003	1.0000e-003	0.0787	0.0797	2.8000e-004	0.0739	0.0742	0.0000	197.1149	197.1149	0.0483	0.0000	198.3213
Maximum	**0.2949**	**1.7365**	**1.4022**	**2.2800e-003**	**0.3364**	**0.0887**	**0.4251**	**0.1109**	**0.0827**	**0.1936**	**0.0000**	**197.1149**	**197.1149**	**0.0503**	**0.0000**	**198.3213**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0408	0.8802	1.3698	2.1900e-003	0.1522	5.1200e-003	0.1573	0.0253	5.1200e-003	0.0304	0.0000	191.7919	191.7919	0.0503	0.0000	193.0483
2021	0.1828	0.9378	1.5248	2.2800e-003	1.0000e-003	6.7000e-003	7.7000e-003	2.8000e-004	6.7000e-003	6.9700e-003	0.0000	197.1147	197.1147	0.0483	0.0000	198.3210

Maximum	0.1828	0.9378	1.5248	2.2800e-003	0.1522	6.7000e-003	0.1573	0.0253	6.7000e-003	0.0304	0.0000	197.1147	197.1147	0.0503	0.0000	198.3210

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	52.13	43.01	-8.94	0.00	54.59	92.94	67.30	77.01	92.45	86.05	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2020	9-30-2020	1.1940	0.5329
2	10-1-2020	12-31-2020	0.7096	0.3856
3	1-1-2021	3-31-2021	0.6302	0.3767
4	4-1-2021	6-30-2021	0.6374	0.3811
5	7-1-2021	9-30-2021	0.4866	0.3662
		Highest	1.1940	0.5329

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation	Site Preparation	7/29/2020	8/11/2020	5	10	
3	Grading	Grading	8/12/2020	9/8/2020	5	20	
4	Trenching	Trenching	8/12/2020	9/8/2020	5	20	
5	Building Construction	Building Construction	9/9/2020	7/27/2021	5	230	
6	Paving	Paving	7/28/2021	8/24/2021	5	20	
7	Architectural Coating	Architectural Coating	8/25/2021	9/21/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 39,693; Non-Residential Outdoor: 13,231; Striped Parking Area: 0

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,654.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	11.00	4.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

Paving	6	15.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1790	0.0000	0.1790	0.0271	0.0000	0.0271	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.1790**	**0.0166**	**0.1956**	**0.0271**	**0.0154**	**0.0425**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

Unmitigated Construction Off-Site

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

Hauling	1.8000e-003	0.0853	0.0139	1.1000e-004	7.2000e-004	8.0000e-005	8.0000e-004	2.0000e-004	8.0000e-005	2.8000e-004	0.0000	10.7411	10.7411	1.1400e-003	0.0000	10.7696
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	8.0000e-005	9.8000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1220	0.1220	1.0000e-005	0.0000	0.1221
Total	**1.9700e-003**	**0.0854**	**0.0149**	**1.1000e-004**	**8.3000e-004**	**8.0000e-005**	**9.1000e-004**	**2.3000e-004**	**8.0000e-005**	**3.1000e-004**	**0.0000**	**10.8631**	**10.8631**	**1.1500e-003**	**0.0000**	**10.8917**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0806	0.0000	0.0806	6.1000e-003	0.0000	6.1000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**0.0806**	**6.2000e-004**	**0.0812**	**6.1000e-003**	**6.2000e-004**	**6.7200e-003**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-003	0.0853	0.0139	1.1000e-004	7.2000e-004	8.0000e-005	8.0000e-004	2.0000e-004	8.0000e-005	2.8000e-004	0.0000	10.7411	10.7411	1.1400e-003	0.0000	10.7696
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	8.0000e-005	9.8000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1220	0.1220	1.0000e-005	0.0000	0.1221

Total	**1.9700e-003**	**0.0854**	**0.0149**	**1.1000e-004**	**8.3000e-004**	**8.0000e-005**	**9.1000e-004**	**2.3000e-004**	**8.0000e-005**	**3.1000e-004**	**0.0000**	**10.8631**	**10.8631**	**1.1500e-003**	**0.0000**	**10.8917**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	5.0000e-005	5.9000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0732	0.0732	0.0000	0.0000	0.0733
Total	**1.0000e-004**	**5.0000e-005**	**5.9000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0732**	**0.0732**	**0.0000**	**0.0000**	**0.0733**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0407**	**3.1000e-004**	**0.0410**	**0.0112**	**3.1000e-004**	**0.0115**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	5.0000e-005	5.9000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0732	0.0732	0.0000	0.0000	0.0733
Total	**1.0000e-004**	**5.0000e-005**	**5.9000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0732**	**0.0732**	**0.0000**	**0.0000**	**0.0733**

3.4 Grading - 2020

Unmitigated Construction On-Site

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

Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0243	0.2639	0.1605	3.0000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	26.0588	26.0588	8.4300e-003	0.0000	26.2694
Total	**0.0243**	**0.2639**	**0.1605**	**3.0000e-004**	**0.0655**	**0.0127**	**0.0783**	**0.0337**	**0.0117**	**0.0454**	**0.0000**	**26.0588**	**26.0588**	**8.4300e-003**	**0.0000**	**26.2694**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	8.0000e-005	9.8000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1220	0.1220	1.0000e-005	0.0000	0.1221
Total	**1.7000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1220**	**0.1220**	**1.0000e-005**	**0.0000**	**0.1221**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0295	0.0000	0.0295	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.1033	0.1899	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0587	26.0587	8.4300e-003	0.0000	26.2694
Total	**5.2000e-003**	**0.1033**	**0.1899**	**3.0000e-004**	**0.0295**	**4.8000e-004**	**0.0300**	**7.5800e-003**	**4.8000e-004**	**8.0600e-003**	**0.0000**	**26.0587**	**26.0587**	**8.4300e-003**	**0.0000**	**26.2694**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	8.0000e-005	9.8000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1220	0.1220	1.0000e-005	0.0000	0.1221
Total	**1.7000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1220**	**0.1220**	**1.0000e-005**	**0.0000**	**0.1221**

3.5 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5500e-003	0.0452	0.0556	8.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	7.2772	7.2772	2.3500e-003	0.0000	7.3360
Total	**4.5500e-003**	**0.0452**	**0.0556**	**8.0000e-005**		**2.5000e-003**	**2.5000e-003**		**2.3000e-003**	**2.3000e-003**	**0.0000**	**7.2772**	**7.2772**	**2.3500e-003**	**0.0000**	**7.3360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0407	0.0407	0.0000	0.0000	0.0407
Total	**6.0000e-005**	**3.0000e-005**	**3.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0407**	**0.0407**	**0.0000**	**0.0000**	**0.0407**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3300e-003	0.0364	0.0627	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2771	7.2771	2.3500e-003	0.0000	7.3360
Total	**1.3300e-003**	**0.0364**	**0.0627**	**8.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.2771**	**7.2771**	**2.3500e-003**	**0.0000**	**7.3360**

Mitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0407	0.0407	0.0000	0.0000	0.0407
Total	**6.0000e-005**	**3.0000e-005**	**3.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0407**	**0.0407**	**0.0000**	**0.0000**	**0.0407**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0869	0.7866	0.6908	1.1000e-003		0.0458	0.0458		0.0431	0.0431	0.0000	94.9601	94.9601	0.0232	0.0000	95.5393
Total	**0.0869**	**0.7866**	**0.6908**	**1.1000e-003**		**0.0458**	**0.0458**		**0.0431**	**0.0431**	**0.0000**	**94.9601**	**94.9601**	**0.0232**	**0.0000**	**95.5393**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	0.0110	3.0400e-003	1.0000e-005	1.5000e-004	2.0000e-005	1.7000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	1.3166	1.3166	1.3000e-004	0.0000	1.3198
Worker	5.0000e-004	2.3000e-004	2.9600e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3668	0.3668	2.0000e-005	0.0000	0.3672
Total	**8.1000e-004**	**0.0112**	**6.0000e-003**	**1.0000e-005**	**4.9000e-004**	**2.0000e-005**	**5.1000e-004**	**1.3000e-004**	**2.0000e-005**	**1.5000e-004**	**0.0000**	**1.6833**	**1.6833**	**1.5000e-004**	**0.0000**	**1.6869**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.4474	0.7328	1.1000e-003		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	94.9600	94.9600	0.0232	0.0000	95.5392
Total	**0.0219**	**0.4474**	**0.7328**	**1.1000e-003**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**94.9600**	**94.9600**	**0.0232**	**0.0000**	**95.5392**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	0.0110	3.0400e-003	1.0000e-005	1.5000e-004	2.0000e-005	1.7000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	1.3166	1.3166	1.3000e-004	0.0000	1.3198
Worker	5.0000e-004	2.3000e-004	2.9600e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3668	0.3668	2.0000e-005	0.0000	0.3672
Total	**8.1000e-004**	**0.0112**	**6.0000e-003**	**1.0000e-005**	**4.9000e-004**	**2.0000e-005**	**5.1000e-004**	**1.3000e-004**	**2.0000e-005**	**1.5000e-004**	**0.0000**	**1.6833**	**1.6833**	**1.5000e-004**	**0.0000**	**1.6869**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1407	1.2900	1.2266	1.9900e-003		0.0709	0.0709		0.0667	0.0667	0.0000	171.4116	171.4116	0.0414	0.0000	172.4454
Total	**0.1407**	**1.2900**	**1.2266**	**1.9900e-003**		**0.0709**	**0.0709**		**0.0667**	**0.0667**	**0.0000**	**171.4116**	**171.4116**	**0.0414**	**0.0000**	**172.4454**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-004	0.0188	5.0700e-003	2.0000e-005	2.7000e-004	2.0000e-005	2.9000e-004	8.0000e-005	2.0000e-005	9.0000e-005	0.0000	2.3536	2.3536	2.2000e-004	0.0000	2.3590
Worker	8.2000e-004	3.6000e-004	4.8100e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.6395	0.6395	3.0000e-005	0.0000	0.6401
Total	**1.3200e-003**	**0.0192**	**9.8800e-003**	**3.0000e-005**	**8.8000e-004**	**3.0000e-005**	**9.0000e-004**	**2.4000e-004**	**3.0000e-005**	**2.6000e-004**	**0.0000**	**2.9930**	**2.9930**	**2.5000e-004**	**0.0000**	**2.9991**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0395	0.8075	1.3227	1.9900e-003		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	171.4114	171.4114	0.0414	0.0000	172.4452

Total	**0.0395**	**0.8075**	**1.3227**	**1.9900e-003**		**6.2600e-003**	**6.2600e-003**		**6.2600e-003**	**6.2600e-003**	**0.0000**	**171.4114**	**171.4114**	**0.0414**	**0.0000**	**172.4452**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-004	0.0188	5.0700e-003	2.0000e-005	2.7000e-004	2.0000e-005	2.9000e-004	8.0000e-005	2.0000e-005	9.0000e-005	0.0000	2.3536	2.3536	2.2000e-004	0.0000	2.3590
Worker	8.2000e-004	3.6000e-004	4.8100e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.6395	0.6395	3.0000e-005	0.0000	0.6401
Total	**1.3200e-003**	**0.0192**	**9.8800e-003**	**3.0000e-005**	**8.8000e-004**	**3.0000e-005**	**9.0000e-004**	**2.4000e-004**	**3.0000e-005**	**2.6000e-004**	**0.0000**	**2.9930**	**2.9930**	**2.5000e-004**	**0.0000**	**2.9991**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	7.0000e-005	8.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1178	0.1178	0.0000	0.0000	0.1180
Total	**1.5000e-004**	**7.0000e-005**	**8.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1178**	**0.1178**	**0.0000**	**0.0000**	**0.1180**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3400e-003**	**0.1004**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	7.0000e-005	8.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1178	0.1178	0.0000	0.0000	0.1180
Total	**1.5000e-004**	**7.0000e-005**	**8.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1178**	**0.1178**	**0.0000**	**0.0000**	**0.1180**

3.8 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1402**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Unmitigated Construction Off-Site

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

Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0157	0.0157	0.0000	0.0000	0.0157
Total	**2.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0157**	**0.0157**	**0.0000**	**0.0000**	**0.0157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1385**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0157	0.0157	0.0000	0.0000	0.0157
Total	**2.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0157**	**0.0157**	**0.0000**	**0.0000**	**0.0157**

Avenues School - Phase 2 AQ

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	117.45	1000sqft	2.70	117,454.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	290	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Academic Building 6, default acerage

Construction Phase - Default construction with trenching added to overlap with grading. No demolition

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment -

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Trips and VMT -

Demolition - No demolition all occurs in phase 1

Grading - No hauling information provided

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

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblLandUse	LandUseSquareFeet	117,450.00	117,454.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.8525	1.9586	1.8766	3.93E-03	0.08	0.0844	0.1644	0.0261	0.0807	0.1068	0	337.1962	337.1962	0.0531	0	338.5242
Maximum	**0.8525**	**1.9586**	**1.8766**	**3.9300e-003**	**0.0800**	**0.0844**	**0.1644**	**0.0261**	**0.0807**	**0.1068**	**0.0000**	**337.1962**	**337.1962**	**0.0531**	**0.0000**	**338.5242**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6892	1.5120	2.0156	3.9300e-003	0.0679	0.0194	0.0872	0.0181	0.0193	0.0374	0.0000	337.1959	337.1959	0.0531	0.0000	338.5239

Maximum	**0.6892**	**1.5120**	**2.0156**	**3.9300e-003**	**0.0679**	**0.0194**	**0.0872**	**0.0181**	**0.0193**	**0.0374**	**0.0000**	**337.1959**	**337.1959**	**0.0531**	**0.0000**	**338.5239**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.15**	**22.81**	**-7.41**	**0.00**	**15.16**	**77.06**	**46.94**	**30.78**	**76.05**	**64.99**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-3-2022**	**4-2-2022**	0.6077	0.4237
2	**4-3-2022**	**7-2-2022**	0.6037	0.4426
3	**7-3-2022**	**9-30-2022**	0.5970	0.4378
		Highest	0.6077	0.4426

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2022	1/5/2022	5	3	
2	Grading	Grading	1/6/2022	1/13/2022	5	6	
3	Trenching	Trenching	1/6/2022	1/13/2022	5	6	
4	Building Construction	Building Construction	1/14/2022	11/17/2022	5	220	
5	Paving	Paving	11/18/2022	12/1/2022	5	10	
6	Architectural Coating	Architectural Coating	12/2/2022	12/15/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 176,181; Non-Residential Outdoor: 58,727; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	49.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

Unmitigated Construction Off-Site

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

Worker	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0759	0.0759	0.0000	0.0000	0.0760
Total	**3.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0759**	**0.0759**	**0.0000**	**0.0000**	**0.0760**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3000e-004	0.0104	0.0205	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**6.3000e-004**	**0.0104**	**0.0205**	**4.0000e-005**	**1.0700e-003**	**6.0000e-005**	**1.1300e-003**	**6.0000e-005**	**6.0000e-005**	**1.2000e-004**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0759	0.0759	0.0000	0.0000	0.0760
Total	**3.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0759**	**0.0759**	**0.0000**	**0.0000**	**0.0760**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0197**	**2.2300e-003**	**0.0219**	**0.0101**	**2.0500e-003**	**0.0122**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	6.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1898	0.1898	0.0000	0.0000	0.1899
Total	**9.0000e-005**	**6.0000e-005**	**6.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1898**	**0.1898**	**0.0000**	**0.0000**	**0.1899**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					8.8500e-003	0.0000	8.8500e-003	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0191	0.0364	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**1.1100e-003**	**0.0191**	**0.0364**	**6.0000e-005**	**8.8500e-003**	**1.0000e-004**	**8.9500e-003**	**2.2700e-003**	**1.0000e-004**	**2.3700e-003**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	6.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1898	0.1898	0.0000	0.0000	0.1899
Total	**9.0000e-005**	**6.0000e-005**	**6.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1898**	**0.1898**	**0.0000**	**0.0000**	**0.1899**

3.4 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1000e-003	0.0104	0.0165	2.0000e-005		5.3000e-004	5.3000e-004		4.9000e-004	4.9000e-004	0.0000	2.1807	2.1807	7.1000e-004	0.0000	2.1983
Total	**1.1000e-003**	**0.0104**	**0.0165**	**2.0000e-005**		**5.3000e-004**	**5.3000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**2.1807**	**2.1807**	**7.1000e-004**	**0.0000**	**2.1983**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0949	0.0949	0.0000	0.0000	0.0950
Total	**4.0000e-005**	**3.0000e-005**	**3.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0949**	**0.0949**	**0.0000**	**0.0000**	**0.0950**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0000e-004	0.0109	0.0188	2.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.1807	2.1807	7.1000e-004	0.0000	2.1983
Total	**4.0000e-004**	**0.0109**	**0.0188**	**2.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.1807**	**2.1807**	**7.1000e-004**	**0.0000**	**2.1983**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0949	0.0949	0.0000	0.0000	0.0950
Total	**4.0000e-005**	**3.0000e-005**	**3.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0949**	**0.0949**	**0.0000**	**0.0000**	**0.0950**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2041	1.6064	1.5789	2.7500e-003		0.0772	0.0772		0.0740	0.0740	0.0000	228.4481	228.4481	0.0441	0.0000	229.5500
Total	**0.2041**	**1.6064**	**1.5789**	**2.7500e-003**		**0.0772**	**0.0772**		**0.0740**	**0.0740**	**0.0000**	**228.4481**	**228.4481**	**0.0441**	**0.0000**	**229.5500**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3600e-003	0.2030	0.0538	5.6000e-004	0.0138	4.1000e-004	0.0142	3.9800e-003	4.0000e-004	4.3700e-003	0.0000	53.6192	53.6192	2.2500e-003	0.0000	53.6755
Worker	0.0155	0.0103	0.1133	3.8000e-004	0.0428	2.6000e-004	0.0430	0.0114	2.4000e-004	0.0116	0.0000	34.1022	34.1022	7.2000e-004	0.0000	34.1202
Total	**0.0219**	**0.2133**	**0.1672**	**9.4000e-004**	**0.0565**	**6.7000e-004**	**0.0572**	**0.0154**	**6.4000e-004**	**0.0160**	**0.0000**	**87.7214**	**87.7214**	**2.9700e-003**	**0.0000**	**87.7958**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0505	1.2150	1.6949	2.7500e-003		0.0183	0.0183		0.0183	0.0183	0.0000	228.4478	228.4478	0.0441	0.0000	229.5497
Total	**0.0505**	**1.2150**	**1.6949**	**2.7500e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**228.4478**	**228.4478**	**0.0441**	**0.0000**	**229.5497**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3600e-003	0.2030	0.0538	5.6000e-004	0.0138	4.1000e-004	0.0142	3.9800e-003	4.0000e-004	4.3700e-003	0.0000	53.6192	53.6192	2.2500e-003	0.0000	53.6755
Worker	0.0155	0.0103	0.1133	3.8000e-004	0.0428	2.6000e-004	0.0430	0.0114	2.4000e-004	0.0116	0.0000	34.1022	34.1022	7.2000e-004	0.0000	34.1202

Total	**0.0219**	**0.2133**	**0.1672**	**9.4000e-004**	**0.0565**	**6.7000e-004**	**0.0572**	**0.0154**	**6.4000e-004**	**0.0160**	**0.0000**	**87.7214**	**87.7214**	**2.9700e-003**	**0.0000**	**87.7958**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7100e-003**	**0.0467**	**0.0585**	**9.0000e-005**		**2.4400e-003**	**2.4400e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.4000e-004	1.5800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4745	0.4745	1.0000e-005	0.0000	0.4748
Total	**2.2000e-004**	**1.4000e-004**	**1.5800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4745**	**0.4745**	**1.0000e-005**	**0.0000**	**0.4748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4800e-003	0.0376	0.0649	9.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4800e-003**	**0.0376**	**0.0649**	**9.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.4000e-004	1.5800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4745	0.4745	1.0000e-005	0.0000	0.4748
Total	**2.2000e-004**	**1.4000e-004**	**1.5800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4745**	**0.4745**	**1.0000e-005**	**0.0000**	**0.4748**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

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

Archit. Coating	0.6125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.6135**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3164	0.3164	1.0000e-005	0.0000	0.3165
Total	**1.4000e-004**	**1.0000e-004**	**1.0500e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3164**	**0.3164**	**1.0000e-005**	**0.0000**	**0.3165**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	5.3000e-003	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.6127**	**5.3000e-003**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.0500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3164	0.3164	1.0000e-005	0.0000	0.3165
Total	**1.4000e-004**	**1.0000e-004**	**1.0500e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3164**	**0.3164**	**1.0000e-005**	**0.0000**	**0.3165**

Avenues School - Phase 2 TAC

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	117.45	1000sqft	2.70	117,454.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Academic Building 6, default acerage

Construction Phase - Default construction with trenching added to overlap with grading. No demolition

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment -

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Trips and VMT - TAC trip length of 1 mile for localized air emissions

Demolition - No demolition all occurs in phase 1

Grading - No hauling information provided

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

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	PhaseStartDate	1/14/2022	1/6/2022
tblLandUse	LandUseSquareFeet	117,450.00	117,454.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.8385	1.8757	1.7688	3.2000e-003	0.0281	0.0839	0.1120	0.0120	0.0802	0.0922	0.0000	269.0121	269.0121	0.0517	0.0000	270.3052
Maximum	**0.8385**	**1.8757**	**1.7688**	**3.2000e-003**	**0.0281**	**0.0839**	**0.1120**	**0.0120**	**0.0802**	**0.0922**	**0.0000**	**269.0121**	**269.0121**	**0.0517**	**0.0000**	**270.3052**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6753	1.4290	1.9078	3.2000e-003	0.0160	0.0188	0.0348	4.0000e-003	0.0188	0.0228	0.0000	269.0118	269.0118	0.0517	0.0000	270.3049
Maximum	**0.6753**	**1.4290**	**1.9078**	**3.2000e-003**	**0.0160**	**0.0188**	**0.0348**	**4.0000e-003**	**0.0188**	**0.0228**	**0.0000**	**269.0118**	**269.0118**	**0.0517**	**0.0000**	**270.3049**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.47**	**23.81**	**-7.86**	**0.00**	**43.14**	**77.54**	**68.90**	**66.75**	**76.52**	**75.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-3-2022	4-2-2022	0.5819	0.3978
2	4-3-2022	7-2-2022	0.5765	0.4154
3	7-3-2022	9-30-2022	0.5701	0.4109
		Highest	0.5819	0.4154

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2022	1/5/2022	5	3	
2	Grading	Grading	1/6/2022	1/13/2022	5	6	
3	Trenching	Trenching	1/6/2022	1/13/2022	5	6	
4	Building Construction	Building Construction	1/14/2022	11/17/2022	5	220	
5	Paving	Paving	11/18/2022	12/1/2022	5	10	
6	Architectural Coating	Architectural Coating	12/2/2022	12/15/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 176,181; Non-Residential Outdoor: 58,727; Striped Parking Area:

OffRoad Equipment

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

Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	49.00	19.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.0900e-003	9.0900e-003	0.0000	0.0000	9.1000e-003
Total	**1.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.0900e-003**	**9.0900e-003**	**0.0000**	**0.0000**	**9.1000e-003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	6.3000e-004	0.0104	0.0205	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**6.3000e-004**	**0.0104**	**0.0205**	**4.0000e-005**	**1.0700e-003**	**6.0000e-005**	**1.1300e-003**	**6.0000e-005**	**6.0000e-005**	**1.2000e-004**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.0900e-003	9.0900e-003	0.0000	0.0000	9.1000e-003
Total	**1.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.0900e-003**	**9.0900e-003**	**0.0000**	**0.0000**	**9.1000e-003**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0197**	**2.2300e-003**	**0.0219**	**0.0101**	**2.0500e-003**	**0.0122**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0227	0.0227	0.0000	0.0000	0.0228
Total	**3.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0227**	**0.0227**	**0.0000**	**0.0000**	**0.0228**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.8500e-003	0.0000	8.8500e-003	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0191	0.0364	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**1.1100e-003**	**0.0191**	**0.0364**	**6.0000e-005**	**8.8500e-003**	**1.0000e-004**	**8.9500e-003**	**2.2700e-003**	**1.0000e-004**	**2.3700e-003**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.6000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0227	0.0227	0.0000	0.0000	0.0228
Total	**3.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0227**	**0.0227**	**0.0000**	**0.0000**	**0.0228**

3.4 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1000e-003	0.0104	0.0165	2.0000e-005		5.3000e-004	5.3000e-004		4.9000e-004	4.9000e-004	0.0000	2.1807	2.1807	7.1000e-004	0.0000	2.1983
Total	**1.1000e-003**	**0.0104**	**0.0165**	**2.0000e-005**		**5.3000e-004**	**5.3000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**2.1807**	**2.1807**	**7.1000e-004**	**0.0000**	**2.1983**

Unmitigated Construction Off-Site

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

Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0114	0.0114	0.0000	0.0000	0.0114
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0114**	**0.0114**	**0.0000**	**0.0000**	**0.0114**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0000e-004	0.0109	0.0188	2.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.1807	2.1807	7.1000e-004	0.0000	2.1983
Total	**4.0000e-004**	**0.0109**	**0.0188**	**2.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.1807**	**2.1807**	**7.1000e-004**	**0.0000**	**2.1983**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0114	0.0114	0.0000	0.0000	0.0114
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0114**	**0.0114**	**0.0000**	**0.0000**	**0.0114**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2041	1.6064	1.5789	2.7500e-003		0.0772	0.0772		0.0740	0.0740	0.0000	228.4481	228.4481	0.0441	0.0000	229.5500
Total	**0.2041**	**1.6064**	**1.5789**	**2.7500e-003**		**0.0772**	**0.0772**		**0.0740**	**0.0740**	**0.0000**	**228.4481**	**228.4481**	**0.0441**	**0.0000**	**229.5500**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2600e-003	0.1286	0.0334	1.7000e-004	1.9300e-003	1.0000e-004	2.0300e-003	5.6000e-004	9.0000e-005	6.6000e-004	0.0000	16.4677	16.4677	1.4500e-003	0.0000	16.5039
Worker	5.0100e-003	2.1300e-003	0.0289	5.0000e-005	4.0100e-003	5.0000e-005	4.0600e-003	1.0700e-003	5.0000e-005	1.1200e-003	0.0000	4.0833	4.0833	1.5000e-004	0.0000	4.0870
Total	**8.2700e-003**	**0.1307**	**0.0622**	**2.2000e-004**	**5.9400e-003**	**1.5000e-004**	**6.0900e-003**	**1.6300e-003**	**1.4000e-004**	**1.7800e-003**	**0.0000**	**20.5509**	**20.5509**	**1.6000e-003**	**0.0000**	**20.5908**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	0.0505	1.2150	1.6949	2.7500e-003		0.0183	0.0183		0.0183	0.0183	0.0000	228.4478	228.4478	0.0441	0.0000	229.5497
Total	**0.0505**	**1.2150**	**1.6949**	**2.7500e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**228.4478**	**228.4478**	**0.0441**	**0.0000**	**229.5497**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2600e-003	0.1286	0.0334	1.7000e-004	1.9300e-003	1.0000e-004	2.0300e-003	5.6000e-004	9.0000e-005	6.6000e-004	0.0000	16.4677	16.4677	1.4500e-003	0.0000	16.5039
Worker	5.0100e-003	2.1300e-003	0.0289	5.0000e-005	4.0100e-003	5.0000e-005	4.0600e-003	1.0700e-003	5.0000e-005	1.1200e-003	0.0000	4.0833	4.0833	1.5000e-004	0.0000	4.0870
Total	**8.2700e-003**	**0.1307**	**0.0622**	**2.2000e-004**	**5.9400e-003**	**1.5000e-004**	**6.0900e-003**	**1.6300e-003**	**1.4000e-004**	**1.7800e-003**	**0.0000**	**20.5509**	**20.5509**	**1.6000e-003**	**0.0000**	**20.5908**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**4.7100e-003**	**0.0467**	**0.0585**	**9.0000e-005**		**2.4400e-003**	**2.4400e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	3.0000e-005	4.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0568	0.0568	0.0000	0.0000	0.0569
Total	**7.0000e-005**	**3.0000e-005**	**4.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0568**	**0.0568**	**0.0000**	**0.0000**	**0.0569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4800e-003	0.0376	0.0649	9.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4800e-003**	**0.0376**	**0.0649**	**9.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	3.0000e-005	4.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0568	0.0568	0.0000	0.0000	0.0569
Total	**7.0000e-005**	**3.0000e-005**	**4.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0568**	**0.0568**	**0.0000**	**0.0000**	**0.0569**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.6135**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0379	0.0379	0.0000	0.0000	0.0379
Total	**5.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0379**	**0.0379**	**0.0000**	**0.0000**	**0.0379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	5.3000e-003	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.6127**	**5.3000e-003**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0379	0.0379	0.0000	0.0000	0.0379

Total	**5.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0379**	**0.0379**	**0.0000**	**0.0000**	**0.0379**

Avenues School - Phase 3 AQ

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	128.23	1000sqft	2.94	128,226.00	0
Health Club	60.95	1000sqft	1.40	60,952.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	290	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Expand gymnasium facilities to include an aquatic center and a theater building. Construct Building 5. Default acreage

Construction Phase - Default construction schedule with trenching added to overlap grading. No demolition

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Trips and VMT -

Demolition - No demolition

Grading - 9/10/2019:Approximately 43,166 of soil would be exported

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

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	43,166.00
tblLandUse	LandUseSquareFeet	128,230.00	128,226.00
tblLandUse	LandUseSquareFeet	60,950.00	60,952.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2423	2.5213	2.3958	6.88E-03	0.2161	0.0889	0.305	0.0775	0.0835	0.161	0	625.8966	625.8966	0.0829	0	627.9696
2024	7.92E-03	0.0706	0.1069	1.70E-04	1.35E-03	3.40E-03	4.74E-03	3.60E-04	3.14E-03	3.50E-03	0	14.9174	14.9174	4.39E-03	0	15.0272
2025	0.9888	0.0143	0.0249	5.00E-05	1.22E-03	6.50E-04	1.87E-03	3.20E-04	6.30E-04	9.60E-04	0	3.9809	3.9809	4.00E-04	0	3.9909
Maximum	**0.9888**	**2.5213**	**2.3958**	**6.8800e-003**	**0.2161**	**0.0889**	**0.3050**	**0.0775**	**0.0835**	**0.1610**	**0.0000**	**625.8966**	**625.8966**	**0.0829**	**0.0000**	**627.9696**

Mitigated Construction

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

2023	0.1123	2.0553	2.6151	6.8800e-003	0.1755	0.0117	0.1871	0.0475	0.0116	0.0591	0.0000	625.8963	625.8963	0.0829	0.0000	627.9693
2024	2.9100e-003	0.0670	0.1181	1.7000e-004	1.3500e-003	2.6000e-004	1.6000e-003	3.6000e-004	2.6000e-004	6.1000e-004	0.0000	14.9173	14.9173	4.3900e-003	0.0000	15.0272
2025	0.9875	0.0137	0.0258	5.0000e-005	1.2200e-003	6.0000e-005	1.2800e-003	3.2000e-004	6.0000e-005	3.8000e-004	0.0000	3.9809	3.9809	4.0000e-004	0.0000	3.9909
Maximum	**0.9875**	**2.0553**	**2.6151**	**6.8800e-003**	**0.1755**	**0.0117**	**0.1871**	**0.0475**	**0.0116**	**0.0591**	**0.0000**	**625.8963**	**625.8963**	**0.0829**	**0.0000**	**627.9693**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**11.00**	**18.04**	**-9.15**	**0.00**	**18.57**	**87.10**	**39.01**	**38.35**	**86.36**	**63.68**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2023**	**4-1-2023**	1.1230	0.9382
2	**4-2-2023**	**7-1-2023**	0.6056	0.4590
3	**7-2-2023**	**10-1-2023**	0.6123	0.4641
4	**10-2-2023**	**1-1-2024**	0.4406	0.3343
8	**10-2-2024**	**1-1-2025**	0.0856	0.0764
9	**1-2-2025**	**4-1-2025**	1.0306	1.0287
		Highest	1.1230	1.0287

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2023	1/6/2023	5	5	
2	Grading	Grading	1/7/2023	1/18/2023	5	8	
3	Trenching	Trenching	1/7/2023	1/18/2023	5	8	
4	Building Construction	Building Construction	1/19/2023	12/6/2023	5	230	
5	Paving	Paving	12/7/2024	1/1/2025	5	18	
6	Architectural Coating	Architectural Coating	1/2/2025	1/27/2025	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 283,767; Non-Residential Outdoor: 94,589; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Grading	6	15.00	0.00	5,396.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	79.00	31.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0452**	**3.1700e-003**	**0.0483**	**0.0248**	**2.9100e-003**	**0.0277**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	8.0000e-005	8.7000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2739	0.2739	1.0000e-005	0.0000	0.2740
Total	**1.2000e-004**	**8.0000e-005**	**8.7000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2739**	**0.2739**	**1.0000e-005**	**0.0000**	**0.2740**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0203	0.0000	0.0203	5.5900e-003	0.0000	5.5900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7400e-003	0.0304	0.0574	1.0000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**1.7400e-003**	**0.0304**	**0.0574**	**1.0000e-004**	**0.0203**	**1.6000e-004**	**0.0205**	**5.5900e-003**	**1.6000e-004**	**5.7500e-003**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Mitigated Construction Off-Site

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

Worker	1.2000e-004	8.0000e-005	8.7000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2739	0.2739	1.0000e-005	0.0000	0.2740
Total	**1.2000e-004**	**8.0000e-005**	**8.7000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2739**	**0.2739**	**1.0000e-005**	**0.0000**	**0.2740**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0287	0.0000	0.0287	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0287**	**3.1000e-003**	**0.0318**	**0.0138**	**2.8500e-003**	**0.0167**	**0.0000**	**10.4243**	**10.4243**	**3.3700e-003**	**0.0000**	**10.5085**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0136	0.4358	0.1405	1.9800e-003	0.0458	7.9000e-004	0.0465	0.0126	7.5000e-004	0.0133	0.0000	192.7073	192.7073	8.1100e-003	0.0000	192.9101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.1600e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3652	0.3652	1.0000e-005	0.0000	0.3654
Total	**0.0138**	**0.4359**	**0.1417**	**1.9800e-003**	**0.0462**	**7.9000e-004**	**0.0470**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**193.0725**	**193.0725**	**8.1200e-003**	**0.0000**	**193.2755**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0129	0.0000	0.0129	3.1100e-003	0.0000	3.1100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0800e-003	0.0413	0.0760	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085
Total	**2.0800e-003**	**0.0413**	**0.0760**	**1.2000e-004**	**0.0129**	**1.9000e-004**	**0.0131**	**3.1100e-003**	**1.9000e-004**	**3.3000e-003**	**0.0000**	**10.4242**	**10.4242**	**3.3700e-003**	**0.0000**	**10.5085**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0136	0.4358	0.1405	1.9800e-003	0.0458	7.9000e-004	0.0465	0.0126	7.5000e-004	0.0133	0.0000	192.7073	192.7073	8.1100e-003	0.0000	192.9101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.1600e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3652	0.3652	1.0000e-005	0.0000	0.3654
Total	**0.0138**	**0.4359**	**0.1417**	**1.9800e-003**	**0.0462**	**7.9000e-004**	**0.0470**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**193.0725**	**193.0725**	**8.1200e-003**	**0.0000**	**193.2755**

3.4 Trenching - 2023

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	1.3600e-003	0.0123	0.0220	3.0000e-005		6.1000e-004	6.1000e-004		5.6000e-004	5.6000e-004	0.0000	2.9091	2.9091	9.4000e-004	0.0000	2.9326
Total	**1.3600e-003**	**0.0123**	**0.0220**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**5.6000e-004**	**5.6000e-004**	**0.0000**	**2.9091**	**2.9091**	**9.4000e-004**	**0.0000**	**2.9326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.9000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1217	0.1217	0.0000	0.0000	0.1218
Total	**5.0000e-005**	**3.0000e-005**	**3.9000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1217**	**0.1217**	**0.0000**	**0.0000**	**0.1218**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3000e-004	0.0145	0.0250	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.9091	2.9091	9.4000e-004	0.0000	2.9326
Total	**5.3000e-004**	**0.0145**	**0.0250**	**3.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**2.9091**	**2.9091**	**9.4000e-004**	**0.0000**	**2.9326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.9000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1217	0.1217	0.0000	0.0000	0.1218
Total	**5.0000e-005**	**3.0000e-005**	**3.9000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1217**	**0.1217**	**0.0000**	**0.0000**	**0.1218**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1809	1.6543	1.8681	3.1000e-003		0.0805	0.0805		0.0757	0.0757	0.0000	266.5755	266.5755	0.0634	0.0000	268.1608
Total	**0.1809**	**1.6543**	**1.8681**	**3.1000e-003**		**0.0805**	**0.0805**		**0.0757**	**0.0757**	**0.0000**	**266.5755**	**266.5755**	**0.0634**	**0.0000**	**268.1608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1700e-003	0.2624	0.0825	9.3000e-004	0.0235	3.1000e-004	0.0238	6.7800e-003	2.9000e-004	7.0700e-003	0.0000	88.8602	88.8602	3.2700e-003	0.0000	88.9420
Worker	0.0245	0.0156	0.1758	6.1000e-004	0.0721	4.3000e-004	0.0725	0.0192	4.0000e-004	0.0196	0.0000	55.2968	55.2968	1.0900e-003	0.0000	55.3241
Total	**0.0326**	**0.2781**	**0.2582**	**1.5400e-003**	**0.0955**	**7.4000e-004**	**0.0963**	**0.0259**	**6.9000e-004**	**0.0266**	**0.0000**	**144.1570**	**144.1570**	**4.3600e-003**	**0.0000**	**144.2661**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0614	1.2549	2.0555	3.1000e-003		9.7300e-003	9.7300e-003		9.7300e-003	9.7300e-003	0.0000	266.5751	266.5751	0.0634	0.0000	268.1605
Total	**0.0614**	**1.2549**	**2.0555**	**3.1000e-003**		**9.7300e-003**	**9.7300e-003**		**9.7300e-003**	**9.7300e-003**	**0.0000**	**266.5751**	**266.5751**	**0.0634**	**0.0000**	**268.1605**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1700e-003	0.2624	0.0825	9.3000e-004	0.0235	3.1000e-004	0.0238	6.7800e-003	2.9000e-004	7.0700e-003	0.0000	88.8602	88.8602	3.2700e-003	0.0000	88.9420
Worker	0.0245	0.0156	0.1758	6.1000e-004	0.0721	4.3000e-004	0.0725	0.0192	4.0000e-004	0.0196	0.0000	55.2968	55.2968	1.0900e-003	0.0000	55.3241
Total	**0.0326**	**0.2781**	**0.2582**	**1.5400e-003**	**0.0955**	**7.4000e-004**	**0.0963**	**0.0259**	**6.9000e-004**	**0.0266**	**0.0000**	**144.1570**	**144.1570**	**4.3600e-003**	**0.0000**	**144.2661**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4900e-003	0.0703	0.1039	1.6000e-004		3.3900e-003	3.3900e-003		3.1300e-003	3.1300e-003	0.0000	13.9233	13.9233	4.3700e-003	0.0000	14.0326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.4900e-003**	**0.0703**	**0.1039**	**1.6000e-004**		**3.3900e-003**	**3.3900e-003**		**3.1300e-003**	**3.1300e-003**	**0.0000**	**13.9233**	**13.9233**	**4.3700e-003**	**0.0000**	**14.0326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	3.0500e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	0.9941	0.9941	2.0000e-005	0.0000	0.9945

Total	**4.3000e-004**	**2.6000e-004**	**3.0500e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**0.9941**	**0.9941**	**2.0000e-005**	**0.0000**	**0.9945**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4800e-003	0.0667	0.1150	1.6000e-004		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	13.9233	13.9233	4.3700e-003	0.0000	14.0326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.4800e-003**	**0.0667**	**0.1150**	**1.6000e-004**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**13.9233**	**13.9233**	**4.3700e-003**	**0.0000**	**14.0326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	3.0500e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	0.9941	0.9941	2.0000e-005	0.0000	0.9945
Total	**4.3000e-004**	**2.6000e-004**	**3.0500e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**0.9941**	**0.9941**	**2.0000e-005**	**0.0000**	**0.9945**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-004	3.7700e-003	6.0900e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.8189	0.8189	2.6000e-004	0.0000	0.8253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**3.7700e-003**	**6.0900e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.8189**	**0.8189**	**2.6000e-004**	**0.0000**	**0.8253**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0561	0.0561	0.0000	0.0000	0.0561
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0561**	**0.0561**	**0.0000**	**0.0000**	**0.0561**

Mitigated Construction On-Site

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

Off-Road	1.5000e-004	3.9200e-003	6.7700e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.8189	0.8189	2.6000e-004	0.0000	0.8253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**3.9200e-003**	**6.7700e-003**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.8189**	**0.8189**	**2.6000e-004**	**0.0000**	**0.8253**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0561	0.0561	0.0000	0.0000	0.0561
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0561**	**0.0561**	**0.0000**	**0.0000**	**0.0561**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.9880**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.0000e-004	2.3900e-003	1.0000e-005	1.1400e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.8080	0.8080	1.0000e-005	0.0000	0.8083
Total	**3.5000e-004**	**2.0000e-004**	**2.3900e-003**	**1.0000e-005**	**1.1400e-003**	**1.0000e-005**	**1.1500e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8080**	**0.8080**	**1.0000e-005**	**0.0000**	**0.8083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-004	9.5400e-003	0.0165	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.9869**	**9.5400e-003**	**0.0165**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.0000e-004	2.3900e-003	1.0000e-005	1.1400e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.8080	0.8080	1.0000e-005	0.0000	0.8083
Total	**3.5000e-004**	**2.0000e-004**	**2.3900e-003**	**1.0000e-005**	**1.1400e-003**	**1.0000e-005**	**1.1500e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8080**	**0.8080**	**1.0000e-005**	**0.0000**	**0.8083**

Avenues School - Phase 3 TAC

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	128.23	1000sqft	2.94	128,226.00	0
Health Club	60.95	1000sqft	1.40	60,952.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Expand gymnasium facilities to include an aquatic center and a theater building. Construct Building 5. Default acreage

Construction Phase - Default construction schedule with trenching added to overlap grading. No demolition

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Trips and VMT - TAC trip length of 1 mile for localized emissions

Demolition - No demolition

Grading - Approximately 27,400 cy of soil would be exported

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

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	27,400.00
tblLandUse	LandUseSquareFeet	128,230.00	128,226.00
tblLandUse	LandUseSquareFeet	60,950.00	60,952.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2103	2.1306	2.1143	3.9200e-003	0.0846	0.0876	0.1721	0.0417	0.0823	0.1240	0.0000	343.0685	343.0685	0.0743	0.0000	344.9253
2024	7.6300e-003	0.0704	0.1046	1.6000e-004	1.3000e-004	3.3900e-003	3.5200e-003	3.0000e-005	3.1300e-003	3.1700e-003	0.0000	14.0424	14.0424	4.3800e-003	0.0000	14.1519
2025	0.9885	0.0141	0.0230	4.0000e-005	1.1000e-004	6.4000e-004	7.6000e-004	3.0000e-005	6.3000e-004	6.6000e-004	0.0000	3.2205	3.2205	3.9000e-004	0.0000	3.2301
Maximum	**0.9885**	**2.1306**	**2.1143**	**3.9200e-003**	**0.0846**	**0.0876**	**0.1721**	**0.0417**	**0.0823**	**0.1240**	**0.0000**	**343.0685**	**343.0685**	**0.0743**	**0.0000**	**344.9253**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0802	1.6646	2.3335	3.9200e-003	0.0444	0.0104	0.0548	0.0119	0.0103	0.0222	0.0000	343.0681	343.0681	0.0743	0.0000	344.9249
2024	2.6100e-003	0.0668	0.1158	1.6000e-004	1.3000e-004	2.5000e-004	3.8000e-004	3.0000e-005	2.5000e-004	2.8000e-004	0.0000	14.0424	14.0424	4.3800e-003	0.0000	14.1519
2025	0.9872	0.0135	0.0239	4.0000e-005	1.1000e-004	5.0000e-005	1.7000e-004	3.0000e-005	5.0000e-005	8.0000e-005	0.0000	3.2205	3.2205	3.9000e-004	0.0000	3.2301
Maximum	**0.9872**	**1.6646**	**2.3335**	**3.9200e-003**	**0.0444**	**0.0104**	**0.0548**	**0.0119**	**0.0103**	**0.0222**	**0.0000**	**343.0681**	**343.0681**	**0.0743**	**0.0000**	**344.9249**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**11.30**	**21.23**	**-10.32**	**0.00**	**47.31**	**88.37**	**68.62**	**71.46**	**87.63**	**82.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2023**	**4-1-2023**	0.7584	0.5736

2	**4-2-2023**	**7-1-2023**	0.5761	0.4295
3	**7-2-2023**	**10-1-2023**	0.5824	0.4342
4	**10-2-2023**	**1-1-2024**	0.4171	0.3107
8	**10-2-2024**	**1-1-2025**	0.0849	0.0758
9	**1-2-2025**	**4-1-2025**	1.0301	1.0283
		Highest	1.0301	1.0283

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2023	1/6/2023	5	5	
2	Grading	Grading	1/7/2023	1/18/2023	5	8	
3	Trenching	Trenching	1/7/2023	1/18/2023	5	8	
4	Building Construction	Building Construction	1/19/2023	12/6/2023	5	230	
5	Paving	Paving	12/7/2024	1/1/2025	5	18	
6	Architectural Coating	Architectural Coating	1/2/2025	1/27/2025	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 283,767; Non-Residential Outdoor: 94,589; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	3,425.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	79.00	31.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0452**	**3.1700e-003**	**0.0483**	**0.0248**	**2.9100e-003**	**0.0277**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0328	0.0328	0.0000	0.0000	0.0328
Total	**4.0000e-005**	**2.0000e-005**	**2.2000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0328**	**0.0328**	**0.0000**	**0.0000**	**0.0328**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0203	0.0000	0.0203	5.5900e-003	0.0000	5.5900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7400e-003	0.0304	0.0574	1.0000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**1.7400e-003**	**0.0304**	**0.0574**	**1.0000e-004**	**0.0203**	**1.6000e-004**	**0.0205**	**5.5900e-003**	**1.6000e-004**	**5.7500e-003**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0328	0.0328	0.0000	0.0000	0.0328
Total	**4.0000e-005**	**2.0000e-005**	**2.2000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0328**	**0.0328**	**0.0000**	**0.0000**	**0.0328**

3.3 Grading - 2023

Unmitigated Construction On-Site

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

Fugitive Dust					0.0278	0.0000	0.0278	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0278**	**3.1000e-003**	**0.0309**	**0.0137**	**2.8500e-003**	**0.0166**	**0.0000**	**10.4243**	**10.4243**	**3.3700e-003**	**0.0000**	**10.5085**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.1343	0.0238	2.2000e-004	1.4900e-003	6.0000e-005	1.5400e-003	4.1000e-004	5.0000e-005	4.7000e-004	0.0000	20.9335	20.9335	1.6500e-003	0.0000	20.9749
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.9000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0438	0.0438	0.0000	0.0000	0.0438
Total	**2.3600e-003**	**0.1343**	**0.0241**	**2.2000e-004**	**1.5300e-003**	**6.0000e-005**	**1.5900e-003**	**4.2000e-004**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**20.9773**	**20.9773**	**1.6500e-003**	**0.0000**	**21.0186**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0125	0.0000	0.0125	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0800e-003	0.0413	0.0760	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085
Total	**2.0800e-003**	**0.0413**	**0.0760**	**1.2000e-004**	**0.0125**	**1.9000e-004**	**0.0127**	**3.0800e-003**	**1.9000e-004**	**3.2700e-003**	**0.0000**	**10.4242**	**10.4242**	**3.3700e-003**	**0.0000**	**10.5085**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.1343	0.0238	2.2000e-004	1.4900e-003	6.0000e-005	1.5400e-003	4.1000e-004	5.0000e-005	4.7000e-004	0.0000	20.9335	20.9335	1.6500e-003	0.0000	20.9749
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.9000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0438	0.0438	0.0000	0.0000	0.0438
Total	**2.3600e-003**	**0.1343**	**0.0241**	**2.2000e-004**	**1.5300e-003**	**6.0000e-005**	**1.5900e-003**	**4.2000e-004**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**20.9773**	**20.9773**	**1.6500e-003**	**0.0000**	**21.0186**

3.4 Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3600e-003	0.0123	0.0220	3.0000e-005		6.1000e-004	6.1000e-004		5.6000e-004	5.6000e-004	0.0000	2.9091	2.9091	9.4000e-004	0.0000	2.9326
Total	**1.3600e-003**	**0.0123**	**0.0220**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**5.6000e-004**	**5.6000e-004**	**0.0000**	**2.9091**	**2.9091**	**9.4000e-004**	**0.0000**	**2.9326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0146	0.0146	0.0000	0.0000	0.0146
Total	**2.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0146**	**0.0146**	**0.0000**	**0.0000**	**0.0146**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3000e-004	0.0145	0.0250	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.9091	2.9091	9.4000e-004	0.0000	2.9326
Total	**5.3000e-004**	**0.0145**	**0.0250**	**3.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**2.9091**	**2.9091**	**9.4000e-004**	**0.0000**	**2.9326**

Mitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0146	0.0146	0.0000	0.0000	0.0146
Total	**2.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0146**	**0.0146**	**0.0000**	**0.0000**	**0.0146**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1809	1.6543	1.8681	3.1000e-003		0.0805	0.0805		0.0757	0.0757	0.0000	266.5755	266.5755	0.0634	0.0000	268.1608
Total	**0.1809**	**1.6543**	**1.8681**	**3.1000e-003**		**0.0805**	**0.0805**		**0.0757**	**0.0757**	**0.0000**	**266.5755**	**266.5755**	**0.0634**	**0.0000**	**268.1608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3400e-003	0.1859	0.0511	2.8000e-004	3.2900e-003	8.0000e-005	3.3700e-003	9.6000e-004	7.0000e-005	1.0300e-003	0.0000	27.1473	27.1473	1.9600e-003	0.0000	27.1964
Worker	7.7700e-003	3.2000e-003	0.0442	7.0000e-005	6.7500e-003	9.0000e-005	6.8400e-003	1.8100e-003	8.0000e-005	1.8900e-003	0.0000	6.6251	6.6251	2.2000e-004	0.0000	6.6306
Total	**0.0121**	**0.1891**	**0.0953**	**3.5000e-004**	**0.0100**	**1.7000e-004**	**0.0102**	**2.7700e-003**	**1.5000e-004**	**2.9200e-003**	**0.0000**	**33.7723**	**33.7723**	**2.1800e-003**	**0.0000**	**33.8269**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0614	1.2549	2.0555	3.1000e-003		9.7300e-003	9.7300e-003		9.7300e-003	9.7300e-003	0.0000	266.5751	266.5751	0.0634	0.0000	268.1605
Total	**0.0614**	**1.2549**	**2.0555**	**3.1000e-003**		**9.7300e-003**	**9.7300e-003**		**9.7300e-003**	**9.7300e-003**	**0.0000**	**266.5751**	**266.5751**	**0.0634**	**0.0000**	**268.1605**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3400e-003	0.1859	0.0511	2.8000e-004	3.2900e-003	8.0000e-005	3.3700e-003	9.6000e-004	7.0000e-005	1.0300e-003	0.0000	27.1473	27.1473	1.9600e-003	0.0000	27.1964
Worker	7.7700e-003	3.2000e-003	0.0442	7.0000e-005	6.7500e-003	9.0000e-005	6.8400e-003	1.8100e-003	8.0000e-005	1.8900e-003	0.0000	6.6251	6.6251	2.2000e-004	0.0000	6.6306
Total	**0.0121**	**0.1891**	**0.0953**	**3.5000e-004**	**0.0100**	**1.7000e-004**	**0.0102**	**2.7700e-003**	**1.5000e-004**	**2.9200e-003**	**0.0000**	**33.7723**	**33.7723**	**2.1800e-003**	**0.0000**	**33.8269**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4900e-003	0.0703	0.1039	1.6000e-004		3.3900e-003	3.3900e-003		3.1300e-003	3.1300e-003	0.0000	13.9233	13.9233	4.3700e-003	0.0000	14.0326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.4900e-003**	**0.0703**	**0.1039**	**1.6000e-004**		**3.3900e-003**	**3.3900e-003**		**3.1300e-003**	**3.1300e-003**	**0.0000**	**13.9233**	**13.9233**	**4.3700e-003**	**0.0000**	**14.0326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	5.0000e-005	7.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1192	0.1192	0.0000	0.0000	0.1193
Total	**1.3000e-004**	**5.0000e-005**	**7.6000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1192**	**0.1192**	**0.0000**	**0.0000**	**0.1193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4800e-003	0.0667	0.1150	1.6000e-004		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	13.9233	13.9233	4.3700e-003	0.0000	14.0326

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.4800e-003**	**0.0667**	**0.1150**	**1.6000e-004**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**13.9233**	**13.9233**	**4.3700e-003**	**0.0000**	**14.0326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	5.0000e-005	7.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1192	0.1192	0.0000	0.0000	0.1193
Total	**1.3000e-004**	**5.0000e-005**	**7.6000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1192**	**0.1192**	**0.0000**	**0.0000**	**0.1193**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-004	3.7700e-003	6.0900e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.6000e-004	1.6000e-004	0.0000	0.8189	0.8189	2.6000e-004	0.0000	0.8253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**3.7700e-003**	**6.0900e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.8189**	**0.8189**	**2.6000e-004**	**0.0000**	**0.8253**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.7300e-003	6.7300e-003	0.0000	0.0000	6.7300e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.7300e-003**	**6.7300e-003**	**0.0000**	**0.0000**	**6.7300e-003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5000e-004	3.9200e-003	6.7700e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.8189	0.8189	2.6000e-004	0.0000	0.8253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**3.9200e-003**	**6.7700e-003**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.8189**	**0.8189**	**2.6000e-004**	**0.0000**	**0.8253**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.7300e-003	6.7300e-003	0.0000	0.0000	6.7300e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.7300e-003**	**6.7300e-003**	**0.0000**	**0.0000**	**6.7300e-003**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.9880**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

Unmitigated Construction Off-Site

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

Worker	1.1000e-004	4.0000e-005	5.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0969	0.0969	0.0000	0.0000	0.0970
Total	**1.1000e-004**	**4.0000e-005**	**5.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0969**	**0.0969**	**0.0000**	**0.0000**	**0.0970**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9865					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-004	9.5400e-003	0.0165	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.9869**	**9.5400e-003**	**0.0165**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	4.0000e-005	5.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0969	0.0969	0.0000	0.0000	0.0970
Total	**1.1000e-004**	**4.0000e-005**	**5.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0969**	**0.0969**	**0.0000**	**0.0000**	**0.0970**

Avenues School - Phase 4 AQ

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	75.84	1000sqft	1.74	75,844.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Construction of Building 7, default acreage

Construction Phase - Defautl construction schedule with trenching added to overlap grading. No demolition

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Trips and VMT - TAC trip length of 1 mile for localized emissions

Demolition - No demolition

Grading - 9/10/2019: excavate 7,028-cy

Construction Off-road Equipment Mitigation - BMPS, tier 4 interim mitigation

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	7,028.00
tblLandUse	LandUseSquareFeet	75,840.00	75,844.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripNumber	879.00	878.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.5477	1.2654	1.4297	3.1800e-003	0.0578	0.0425	0.1002	0.0194	0.0408	0.0603	0.0000	273.3323	273.3323	0.0361	0.0000	274.2335
Maximum	**0.5477**	**1.2654**	**1.4297**	**3.1800e-003**	**0.0578**	**0.0425**	**0.1002**	**0.0194**	**0.0408**	**0.0603**	**0.0000**	**273.3323**	**273.3323**	**0.0361**	**0.0000**	**274.2335**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.4507	1.2124	1.5493	3.1800e-003	0.0490	0.0168	0.0657	0.0150	0.0168	0.0317	0.0000	273.3320	273.3320	0.0361	0.0000	274.2332

Maximum	**0.4507**	**1.2124**	**1.5493**	**3.1800e-003**	**0.0490**	**0.0168**	**0.0657**	**0.0150**	**0.0168**	**0.0317**	**0.0000**	**273.3320**	**273.3320**	**0.0361**	**0.0000**	**274.2332**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**17.70**	**4.19**	**-8.37**	**0.00**	**15.25**	**60.48**	**34.41**	**22.86**	**58.96**	**47.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2025**	**3-31-2025**	0.4838	0.4309
2	**4-1-2025**	**6-30-2025**	0.4140	0.3703
3	**7-1-2025**	**9-30-2025**	0.4185	0.3743
		Highest	0.4838	0.4309

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2025	1/2/2025	5	2	
2	Grading	Grading	1/3/2025	1/8/2025	5	4	
3	Trenching	Trenching	1/9/2025	1/14/2025	5	4	
4	Building Construction	Building Construction	1/9/2025	10/15/2025	5	200	
5	Paving	Paving	10/16/2025	10/29/2025	5	10	
6	Architectural Coating	Architectural Coating	10/30/2025	11/12/2025	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 113,766; Non-Residential Outdoor: 37,922; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	878.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	32.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0100e-003	0.0106	6.4500e-003	2.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.0100e-003**	**0.0106**	**6.4500e-003**	**2.0000e-005**	**5.8000e-003**	**4.2000e-004**	**6.2200e-003**	**2.9500e-003**	**3.9000e-004**	**3.3400e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Unmitigated Construction Off-Site

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

Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0449	0.0449	0.0000	0.0000	0.0449
Total	**2.0000e-005**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0449**	**0.0449**	**0.0000**	**0.0000**	**0.0449**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6100e-003	0.0000	2.6100e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	5.0700e-003	9.8200e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**3.0000e-004**	**5.0700e-003**	**9.8200e-003**	**2.0000e-005**	**2.6100e-003**	**3.0000e-005**	**2.6400e-003**	**1.3300e-003**	**3.0000e-005**	**1.3600e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0449	0.0449	0.0000	0.0000	0.0449
Total	**2.0000e-005**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0449**	**0.0449**	**0.0000**	**0.0000**	**0.0449**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0102	0.0000	0.0102	5.1100e-003	0.0000	5.1100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6700e-003	0.0175	0.0108	3.0000e-005		7.0000e-004	7.0000e-004		6.4000e-004	6.4000e-004	0.0000	2.4761	2.4761	8.0000e-004	0.0000	2.4961
Total	**1.6700e-003**	**0.0175**	**0.0108**	**3.0000e-005**	**0.0102**	**7.0000e-004**	**0.0109**	**5.1100e-003**	**6.4000e-004**	**5.7500e-003**	**0.0000**	**2.4761**	**2.4761**	**8.0000e-004**	**0.0000**	**2.4961**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1700e-003	0.0679	0.0231	3.2000e-004	7.4500e-003	1.2000e-004	7.5700e-003	2.0500e-003	1.2000e-004	2.1700e-003	0.0000	30.8962	30.8962	1.3100e-003	0.0000	30.9290
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0898	0.0898	0.0000	0.0000	0.0898
Total	**2.2100e-003**	**0.0679**	**0.0233**	**3.2000e-004**	**7.5800e-003**	**1.2000e-004**	**7.7000e-003**	**2.0800e-003**	**1.2000e-004**	**2.2000e-003**	**0.0000**	**30.9860**	**30.9860**	**1.3100e-003**	**0.0000**	**31.0188**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					4.6000e-003	0.0000	4.6000e-003	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-004	8.3600e-003	0.0162	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.4761	2.4761	8.0000e-004	0.0000	2.4961
Total	**4.9000e-004**	**8.3600e-003**	**0.0162**	**3.0000e-005**	**4.6000e-003**	**5.0000e-005**	**4.6500e-003**	**2.3000e-003**	**5.0000e-005**	**2.3500e-003**	**0.0000**	**2.4761**	**2.4761**	**8.0000e-004**	**0.0000**	**2.4961**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1700e-003	0.0679	0.0231	3.2000e-004	7.4500e-003	1.2000e-004	7.5700e-003	2.0500e-003	1.2000e-004	2.1700e-003	0.0000	30.8962	30.8962	1.3100e-003	0.0000	30.9290
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0898	0.0898	0.0000	0.0000	0.0898
Total	**2.2100e-003**	**0.0679**	**0.0233**	**3.2000e-004**	**7.5800e-003**	**1.2000e-004**	**7.7000e-003**	**2.0800e-003**	**1.2000e-004**	**2.2000e-003**	**0.0000**	**30.9860**	**30.9860**	**1.3100e-003**	**0.0000**	**31.0188**

3.4 Trenching - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.0000e-004	5.1100e-003	0.0110	2.0000e-005		2.3000e-004	2.3000e-004		2.1000e-004	2.1000e-004	0.0000	1.4558	1.4558	4.7000e-004	0.0000	1.4676
Total	**6.0000e-004**	**5.1100e-003**	**0.0110**	**2.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**1.4558**	**1.4558**	**4.7000e-004**	**0.0000**	**1.4676**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0561	0.0561	0.0000	0.0000	0.0561
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0561**	**0.0561**	**0.0000**	**0.0000**	**0.0561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.7000e-004	7.2600e-003	0.0125	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.4558	1.4558	4.7000e-004	0.0000	1.4676
Total	**2.7000e-004**	**7.2600e-003**	**0.0125**	**2.0000e-005**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.4558**	**1.4558**	**4.7000e-004**	**0.0000**	**1.4676**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0561	0.0561	0.0000	0.0000	0.0561
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0561**	**0.0561**	**0.0000**	**0.0000**	**0.0561**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1325	1.0413	1.2439	2.2100e-003		0.0393	0.0393		0.0379	0.0379	0.0000	181.6322	181.6322	0.0297	0.0000	182.3736
Total	**0.1325**	**1.0413**	**1.2439**	**2.2100e-003**		**0.0393**	**0.0393**		**0.0379**	**0.0379**	**0.0000**	**181.6322**	**181.6322**	**0.0297**	**0.0000**	**182.3736**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5900e-003	0.0861	0.0261	3.1000e-004	7.9000e-003	1.0000e-004	8.0000e-003	2.2800e-003	1.0000e-004	2.3800e-003	0.0000	29.5181	29.5181	1.0600e-003	0.0000	29.5445
Worker	7.6700e-003	4.5200e-003	0.0532	2.0000e-004	0.0254	1.5000e-004	0.0255	6.7500e-003	1.4000e-004	6.8900e-003	0.0000	17.9554	17.9554	3.1000e-004	0.0000	17.9632
Total	**0.0103**	**0.0906**	**0.0793**	**5.1000e-004**	**0.0333**	**2.5000e-004**	**0.0335**	**9.0300e-003**	**2.4000e-004**	**9.2700e-003**	**0.0000**	**47.4735**	**47.4735**	**1.3700e-003**	**0.0000**	**47.5077**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0401	0.9992	1.3479	2.2100e-003		0.0162	0.0162		0.0162	0.0162	0.0000	181.6320	181.6320	0.0297	0.0000	182.3734
Total	**0.0401**	**0.9992**	**1.3479**	**2.2100e-003**		**0.0162**	**0.0162**		**0.0162**	**0.0162**	**0.0000**	**181.6320**	**181.6320**	**0.0297**	**0.0000**	**182.3734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5900e-003	0.0861	0.0261	3.1000e-004	7.9000e-003	1.0000e-004	8.0000e-003	2.2800e-003	1.0000e-004	2.3800e-003	0.0000	29.5181	29.5181	1.0600e-003	0.0000	29.5445
Worker	7.6700e-003	4.5200e-003	0.0532	2.0000e-004	0.0254	1.5000e-004	0.0255	6.7500e-003	1.4000e-004	6.8900e-003	0.0000	17.9554	17.9554	3.1000e-004	0.0000	17.9632

Total	**0.0103**	**0.0906**	**0.0793**	**5.1000e-004**	**0.0333**	**2.5000e-004**	**0.0335**	**9.0300e-003**	**2.4000e-004**	**9.2700e-003**	**0.0000**	**47.4735**	**47.4735**	**1.3700e-003**	**0.0000**	**47.5077**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	9.0000e-005	1.0800e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3647	0.3647	1.0000e-005	0.0000	0.3649
Total	**1.6000e-004**	**9.0000e-005**	**1.0800e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3647**	**0.3647**	**1.0000e-005**	**0.0000**	**0.3649**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0700e-003	0.0286	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0700e-003**	**0.0286**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	9.0000e-005	1.0800e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3647	0.3647	1.0000e-005	0.0000	0.3649
Total	**1.6000e-004**	**9.0000e-005**	**1.0800e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3647**	**0.3647**	**1.0000e-005**	**0.0000**	**0.3649**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

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

Archit. Coating	0.3955					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.3963**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	4.0000e-005	5.0000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1683	0.1683	0.0000	0.0000	0.1684
Total	**7.0000e-005**	**4.0000e-005**	**5.0000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1683**	**0.1683**	**0.0000**	**0.0000**	**0.1684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3955					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	5.3000e-003	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.3958**	**5.3000e-003**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	4.0000e-005	5.0000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1683	0.1683	0.0000	0.0000	0.1684
Total	**7.0000e-005**	**4.0000e-005**	**5.0000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1683**	**0.1683**	**0.0000**	**0.0000**	**0.1684**

Avenues School - Phase 4 TAC

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	75.84	1000sqft	1.74	75,844.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Construction of Building 7, default acreage

Construction Phase - Defautl construction schedule with trenching added to overlap grading. No demolition

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default trenching equipment

Trips and VMT - TAC trip length of 1 mile for localized emissions

Demolition - No demolition

Grading - excavate 6,600 cy of soil

Construction Off-road Equipment Mitigation - BMPS, tier 4 interim mitigation

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	PhaseEndDate	1/8/2025	1/14/2025
tblGrading	MaterialExported	0.00	6,600.00
tblLandUse	LandUseSquareFeet	75,840.00	75,844.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.5393	1.2007	1.3603	2.5200e-003	0.0199	0.0422	0.0621	9.1500e-003	0.0406	0.0497	0.0000	210.3470	210.3470	0.0344	0.0000	211.2070
Maximum	**0.5393**	**1.2007**	**1.3603**	**2.5200e-003**	**0.0199**	**0.0422**	**0.0621**	**9.1500e-003**	**0.0406**	**0.0497**	**0.0000**	**210.3470**	**210.3470**	**0.0344**	**0.0000**	**211.2070**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.4423	1.1477	1.4799	2.5200e-003	0.0111	0.0165	0.0276	4.7100e-003	0.0165	0.0212	0.0000	210.3468	210.3468	0.0344	0.0000	211.2068
Maximum	**0.4423**	**1.1477**	**1.4799**	**2.5200e-003**	**0.0111**	**0.0165**	**0.0276**	**4.7100e-003**	**0.0165**	**0.0212**	**0.0000**	**210.3468**	**210.3468**	**0.0344**	**0.0000**	**211.2068**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**17.98**	**4.41**	**-8.79**	**0.00**	**44.13**	**60.93**	**55.53**	**48.52**	**59.41**	**57.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2025	3-31-2025	0.4318	0.3789
2	4-1-2025	6-30-2025	0.4032	0.3595
3	7-1-2025	9-30-2025	0.4076	0.3634
		Highest	0.4318	0.3789

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3358	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4400e-003
Energy	7.5400e-003	0.0686	0.0576	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	128.4068	128.4068	6.8100e-003	2.4800e-003	129.3163
Mobile	0.1478	0.5888	1.6783	6.5300e-003	0.6852	5.1200e-003	0.6904	0.1834	4.7600e-003	0.1882	0.0000	599.6741	599.6741	0.0182	0.0000	600.1301
Waste						0.0000	0.0000		0.0000	0.0000	20.0129	0.0000	20.0129	1.1827	0.0000	49.5811
Water						0.0000	0.0000		0.0000	0.0000	0.6977	4.1688	4.8665	0.0721	1.7800e-003	7.1983
Total	**0.4912**	**0.6574**	**1.7366**	**6.9400e-003**	**0.6852**	**0.0103**	**0.6956**	**0.1834**	**9.9700e-003**	**0.1934**	**20.7106**	**732.2510**	**752.9616**	**1.2799**	**4.2600e-003**	**786.2272**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3358	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4400e-003
Energy	7.5400e-003	0.0686	0.0576	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	128.4068	128.4068	6.8100e-003	2.4800e-003	129.3163
Mobile	0.1478	0.5888	1.6783	6.5300e-003	0.6852	5.1200e-003	0.6904	0.1834	4.7600e-003	0.1882	0.0000	599.6741	599.6741	0.0182	0.0000	600.1301
Waste						0.0000	0.0000		0.0000	0.0000	20.0129	0.0000	20.0129	1.1827	0.0000	49.5811
Water						0.0000	0.0000		0.0000	0.0000	0.6977	4.1688	4.8665	0.0721	1.7800e-003	7.1983

Total	0.4912	0.6574	1.7366	6.9400e-003	0.6852	0.0103	0.6956	0.1834	9.9700e-003	0.1934	20.7106	732.2510	752.9616	1.2799	4.2600e-003	786.2272

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2025	1/2/2025	5	2	
2	Grading	Grading	1/3/2025	1/8/2025	5	4	
3	Trenching	Trenching	1/9/2025	1/14/2025	5	4	
4	Building Construction	Building Construction	1/9/2025	10/15/2025	5	200	
5	Paving	Paving	10/16/2025	10/29/2025	5	10	
6	Architectural Coating	Architectural Coating	10/30/2025	11/12/2025	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 113,766; Non-Residential Outdoor: 37,922; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	825.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	32.00	12.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0100e-003	0.0106	6.4500e-003	2.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.0100e-003**	**0.0106**	**6.4500e-003**	**2.0000e-005**	**5.8000e-003**	**4.2000e-004**	**6.2200e-003**	**2.9500e-003**	**3.9000e-004**	**3.3400e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	5.3800e-003	5.3800e-003	0.0000	0.0000	5.3900e-003
Total	**1.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.3800e-003**	**5.3800e-003**	**0.0000**	**0.0000**	**5.3900e-003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6100e-003	0.0000	2.6100e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	5.0700e-003	9.8200e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**3.0000e-004**	**5.0700e-003**	**9.8200e-003**	**2.0000e-005**	**2.6100e-003**	**3.0000e-005**	**2.6400e-003**	**1.3300e-003**	**3.0000e-005**	**1.3600e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	5.3800e-003	5.3800e-003	0.0000	0.0000	5.3900e-003
Total	**1.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.3800e-003**	**5.3800e-003**	**0.0000**	**0.0000**	**5.3900e-003**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0102	0.0000	0.0102	5.1100e-003	0.0000	5.1100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	1.6700e-003	0.0175	0.0108	3.0000e-005		7.0000e-004	7.0000e-004		6.4000e-004	6.4000e-004	0.0000	2.4761	2.4761	8.0000e-004	0.0000	2.4961
Total	**1.6700e-003**	**0.0175**	**0.0108**	**3.0000e-005**	**0.0102**	**7.0000e-004**	**0.0109**	**5.1100e-003**	**6.4000e-004**	**5.7500e-003**	**0.0000**	**2.4761**	**2.4761**	**8.0000e-004**	**0.0000**	**2.4961**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.3000e-004	0.0316	5.6800e-003	5.0000e-005	3.6000e-004	1.0000e-005	3.7000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	4.9192	4.9192	3.7000e-004	0.0000	4.9285
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	7.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0108	0.0108	0.0000	0.0000	0.0108
Total	**5.4000e-004**	**0.0316**	**5.7500e-003**	**5.0000e-005**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**1.0000e-004**	**1.0000e-005**	**1.1000e-004**	**0.0000**	**4.9299**	**4.9299**	**3.7000e-004**	**0.0000**	**4.9392**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.5900e-003	0.0000	4.5900e-003	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-004	8.3600e-003	0.0162	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.4761	2.4761	8.0000e-004	0.0000	2.4961
Total	**4.9000e-004**	**8.3600e-003**	**0.0162**	**3.0000e-005**	**4.5900e-003**	**5.0000e-005**	**4.6400e-003**	**2.3000e-003**	**5.0000e-005**	**2.3500e-003**	**0.0000**	**2.4761**	**2.4761**	**8.0000e-004**	**0.0000**	**2.4961**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.3000e-004	0.0316	5.6800e-003	5.0000e-005	3.6000e-004	1.0000e-005	3.7000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	4.9192	4.9192	3.7000e-004	0.0000	4.9285
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	7.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0108	0.0108	0.0000	0.0000	0.0108
Total	**5.4000e-004**	**0.0316**	**5.7500e-003**	**5.0000e-005**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**1.0000e-004**	**1.0000e-005**	**1.1000e-004**	**0.0000**	**4.9299**	**4.9299**	**3.7000e-004**	**0.0000**	**4.9392**

3.4 Trenching - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.0000e-004	5.1100e-003	0.0110	2.0000e-005		2.3000e-004	2.3000e-004		2.1000e-004	2.1000e-004	0.0000	1.4558	1.4558	4.7000e-004	0.0000	1.4676
Total	**6.0000e-004**	**5.1100e-003**	**0.0110**	**2.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**1.4558**	**1.4558**	**4.7000e-004**	**0.0000**	**1.4676**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.7300e-003	6.7300e-003	0.0000	0.0000	6.7300e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.7300e-003**	**6.7300e-003**	**0.0000**	**0.0000**	**6.7300e-003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.7000e-004	7.2600e-003	0.0125	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.4558	1.4558	4.7000e-004	0.0000	1.4676
Total	**2.7000e-004**	**7.2600e-003**	**0.0125**	**2.0000e-005**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.4558**	**1.4558**	**4.7000e-004**	**0.0000**	**1.4676**

Mitigated Construction Off-Site

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

Worker	1.0000e-005	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.7300e-003	6.7300e-003	0.0000	0.0000	6.7300e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.7300e-003**	**6.7300e-003**	**0.0000**	**0.0000**	**6.7300e-003**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1325	1.0413	1.2439	2.2100e-003		0.0393	0.0393		0.0379	0.0379	0.0000	181.6322	181.6322	0.0297	0.0000	182.3736
Total	**0.1325**	**1.0413**	**1.2439**	**2.2100e-003**		**0.0393**	**0.0393**		**0.0379**	**0.0379**	**0.0000**	**181.6322**	**181.6322**	**0.0297**	**0.0000**	**182.3736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3400e-003	0.0614	0.0158	9.0000e-005	1.1100e-003	2.0000e-005	1.1300e-003	3.2000e-004	2.0000e-005	3.5000e-004	0.0000	8.9488	8.9488	6.1000e-004	0.0000	8.9642
Worker	2.3500e-003	9.0000e-004	0.0131	2.0000e-005	2.3800e-003	3.0000e-005	2.4100e-003	6.4000e-004	3.0000e-005	6.6000e-004	0.0000	2.1534	2.1534	6.0000e-005	0.0000	2.1550
Total	**3.6900e-003**	**0.0623**	**0.0289**	**1.1000e-004**	**3.4900e-003**	**5.0000e-005**	**3.5400e-003**	**9.6000e-004**	**5.0000e-005**	**1.0100e-003**	**0.0000**	**11.1022**	**11.1022**	**6.7000e-004**	**0.0000**	**11.1191**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0401	0.9992	1.3479	2.2100e-003		0.0162	0.0162		0.0162	0.0162	0.0000	181.6320	181.6320	0.0297	0.0000	182.3734
Total	**0.0401**	**0.9992**	**1.3479**	**2.2100e-003**		**0.0162**	**0.0162**		**0.0162**	**0.0162**	**0.0000**	**181.6320**	**181.6320**	**0.0297**	**0.0000**	**182.3734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3400e-003	0.0614	0.0158	9.0000e-005	1.1100e-003	2.0000e-005	1.1300e-003	3.2000e-004	2.0000e-005	3.5000e-004	0.0000	8.9488	8.9488	6.1000e-004	0.0000	8.9642
Worker	2.3500e-003	9.0000e-004	0.0131	2.0000e-005	2.3800e-003	3.0000e-005	2.4100e-003	6.4000e-004	3.0000e-005	6.6000e-004	0.0000	2.1534	2.1534	6.0000e-005	0.0000	2.1550
Total	**3.6900e-003**	**0.0623**	**0.0289**	**1.1000e-004**	**3.4900e-003**	**5.0000e-005**	**3.5400e-003**	**9.6000e-004**	**5.0000e-005**	**1.0100e-003**	**0.0000**	**11.1022**	**11.1022**	**6.7000e-004**	**0.0000**	**11.1191**

3.6 Paving - 2025

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0437	0.0437	0.0000	0.0000	0.0438
Total	**5.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0437**	**0.0437**	**0.0000**	**0.0000**	**0.0438**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0700e-003	0.0286	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**1.0700e-003**	**0.0286**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0437	0.0437	0.0000	0.0000	0.0438
Total	**5.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0437**	**0.0437**	**0.0000**	**0.0000**	**0.0438**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3955					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.3963**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0202	0.0202	0.0000	0.0000	0.0202
Total	**2.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0202**	**0.0202**	**0.0000**	**0.0000**	**0.0202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3955					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	5.3000e-003	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.3958**	**5.3000e-003**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0202	0.0202	0.0000	0.0000	0.0202
Total	**2.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0202**	**0.0202**	**0.0000**	**0.0000**	**0.0202**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1478	0.5888	1.6783	6.5300e-003	0.6852	5.1200e-003	0.6904	0.1834	4.7600e-003	0.1882	0.0000	599.6741	599.6741	0.0182	0.0000	600.1301
Unmitigated	0.1478	0.5888	1.6783	6.5300e-003	0.6852	5.1200e-003	0.6904	0.1834	4.7600e-003	0.1882	0.0000	599.6741	599.6741	0.0182	0.0000	600.1301

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	1,170.21	0.00	0.00	1,843,032	1,843,032
Total	1,170.21	0.00	0.00	1,843,032	1,843,032

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	53.7742	53.7742	5.3800e-003	1.1100e-003	54.2402
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	53.7742	53.7742	5.3800e-003	1.1100e-003	54.2402
NaturalGas Mitigated	7.5400e-003	0.0686	0.0576	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6327	74.6327	1.4300e-003	1.3700e-003	75.0762
NaturalGas Unmitigated	7.5400e-003	0.0686	0.0576	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6327	74.6327	1.4300e-003	1.3700e-003	75.0762

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Elementary School	1.39856e+006	7.5400e-003	0.0686	0.0576	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6327	74.6327	1.4300e-003	1.3700e-003	75.0762
Total		**7.5400e-003**	**0.0686**	**0.0576**	**4.1000e-004**		**5.2100e-003**	**5.2100e-003**		**5.2100e-003**	**5.2100e-003**	**0.0000**	**74.6327**	**74.6327**	**1.4300e-003**	**1.3700e-003**	**75.0762**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	1.39856e+006	7.5400e-003	0.0686	0.0576	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6327	74.6327	1.4300e-003	1.3700e-003	75.0762
Total		**7.5400e-003**	**0.0686**	**0.0576**	**4.1000e-004**		**5.2100e-003**	**5.2100e-003**		**5.2100e-003**	**5.2100e-003**	**0.0000**	**74.6327**	**74.6327**	**1.4300e-003**	**1.3700e-003**	**75.0762**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	408799	53.7742	5.3800e-003	1.1100e-003	54.2402
Total		**53.7742**	**5.3800e-003**	**1.1100e-003**	**54.2402**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	408799	53.7742	5.3800e-003	1.1100e-003	54.2402
Total		**53.7742**	**5.3800e-003**	**1.1100e-003**	**54.2402**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3358	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4400e-003
Unmitigated	0.3358	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0396					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2962					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4400e-003
Total	**0.3358**	**1.0000e-005**	**7.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**0.0000**	**1.4400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0396					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2962					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4400e-003
Total	**0.3358**	**1.0000e-005**	**7.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**0.0000**	**1.4400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.8665	0.0721	1.7800e-003	7.1983
Unmitigated	4.8665	0.0721	1.7800e-003	7.1983

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	2.19913 / 5.6549	4.8665	0.0721	1.7800e-003	7.1983
Total		**4.8665**	**0.0721**	**1.7800e-003**	**7.1983**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	2.19913 / 5.6549	4.8665	0.0721	1.7800e-003	7.1983
Total		**4.8665**	**0.0721**	**1.7800e-003**	**7.1983**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.0129	1.1827	0.0000	49.5811
Unmitigated	20.0129	1.1827	0.0000	49.5811

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	98.59	20.0129	1.1827	0.0000	49.5811
Total		**20.0129**	**1.1827**	**0.0000**	**49.5811**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	98.59	20.0129	1.1827	0.0000	49.5811
Total		**20.0129**	**1.1827**	**0.0000**	**49.5811**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Operational Criteria Pollutants & GHG CalEEMod Outputs

Avenues School - Ooperational/GHG model - Santa Clara County, Annual

Avenues School - Operational/GHG model

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	296.00	Student	0.00	39,134.50	0
Elementary School	160.00	Student	0.00	39,134.50	0
Elementary School	880.00	Student	11.87	38,549.50	0
High School	880.00	Student	0.00	382,476.00	0
Junior High School	528.00	Student	0.00	38,549.50	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Land Use - Toddler to 12 Private School: Using Land Uses to match TIA on a 11.87-acre site. Used square footages of buildings. Divided buildings 1 and 2 square footage for the day-care, elemetnary school, and junior high buildings. Placed remaining sqft into high school land use

Construction Phase - no construction, only operational modeling

Off-road Equipment - No construction equipment

Vehicle Trips - Adjusted Trip Rate for 17% Red for students. Assuming no Trips for Daycare on Sat or Sun. High school has weekend activities Day-Care: 3.39, Elementary School: 3.41, Junior High: 3.41, High School: 1.68, 0.60, 0.25. Changed trip length for students to 10.46 based on traffic VMT memo

Energy Use -

Water And Wastewater - 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00
tblLandUse	LandUseSquareFeet	16,730.76	39,134.50
tblLandUse	LandUseSquareFeet	13,376.54	39,134.50
tblLandUse	LandUseSquareFeet	73,570.97	38,549.50
tblLandUse	LandUseSquareFeet	116,741.66	382,476.00
tblLandUse	LandUseSquareFeet	62,072.57	38,549.50
tblLandUse	LotAcreage	0.38	0.00
tblLandUse	LotAcreage	0.31	0.00
tblLandUse	LotAcreage	1.69	11.87
tblLandUse	LotAcreage	2.68	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	126.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	166.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleTrips	CC_TL	7.30	10.46
tblVehicleTrips	CC_TL	7.30	10.46
tblVehicleTrips	CC_TL	7.30	10.46
tblVehicleTrips	CC_TL	7.30	10.46

tblVehicleTrips	ST_TR	0.39	0.00
tblVehicleTrips	SU_TR	0.37	0.00
tblVehicleTrips	WD_TR	4.38	3.39
tblVehicleTrips	WD_TR	1.29	3.41
tblVehicleTrips	WD_TR	1.71	1.68
tblVehicleTrips	WD_TR	1.62	3.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3833	2.30E-04	0.0252	0		9.00E-05	9.00E-05		9.00E-05	9.00E-05	0	0.049	0.049	1.30E-04	0	0.0522
Energy	0.0535	0.4862	0.4084	2.92E-03		0.037	0.037		0.037	0.037	0	910.5908	910.5908	0.0483	0.0176	917.0404

Mobile	1.0378	4.1739	12.1911	0.0482	5.0837	0.0376	5.1213	1.3606	0.0349	1.3955	0	4,421.18	4,421.18	0.1326	0	4,424.49
Stationary	0.012	0.0335	0.0435	6.00E-05		1.76E-03	1.76E-03		1.76E-03	1.76E-03	0	5.5596	5.5596	7.80E-04	0	5.5791
Waste						0	0		0	0	101.6538	0	101.6538	6.0076	0	251.843
Water						0	0		0	0	2.9702	15.9143	18.8845	0.0118	6.79E-03	21.2028
Total	**3.4866**	**4.6938**	**12.6681**	**0.0511**	**5.0837**	**0.0764**	**5.1601**	**1.3606**	**0.0737**	**1.4343**	**104.624**	**5,353.29**	**5,457.91**	**6.2012**	**0.0244**	**5,620.21**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3833	2.3000e-004	0.0252	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Energy	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	910.5908	910.5908	0.0483	0.0176	917.0404
Mobile	1.0378	4.1739	12.1911	0.0482	5.0837	0.0376	5.1213	1.3606	0.0349	1.3955	0.0000	4,421.1756	4,421.1756	0.1326	0.0000	4,424.4904
Stationary	0.0120	0.0335	0.0435	6.0000e-005		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	5.5596	5.5596	7.8000e-004	0.0000	5.5791
Waste						0.0000	0.0000		0.0000	0.0000	101.6538	0.0000	101.6538	6.0076	0.0000	251.8430
Water						0.0000	0.0000		0.0000	0.0000	2.9702	15.9143	18.8845	0.0118	6.7900e-003	21.2028
Total	**3.4866**	**4.6938**	**12.6681**	**0.0511**	**5.0837**	**0.0764**	**5.1601**	**1.3606**	**0.0737**	**1.4343**	**104.6240**	**5,353.2893**	**5,457.9134**	**6.2012**	**0.0244**	**5,620.2080**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0378	4.1739	12.1911	0.0482	5.0837	0.0376	5.1213	1.3606	0.0349	1.3955	0.0000	4,421.1756	4,421.1756	0.1326	0.0000	4,424.4904
Unmitigated	1.0378	4.1739	12.1911	0.0482	5.0837	0.0376	5.1213	1.3606	0.0349	1.3955	0.0000	4,421.1756	4,421.1756	0.1326	0.0000	4,424.4904

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Day-Care Center	1,003.44	0.00	0.00	1,132,421	1,132,421
Elementary School	545.60	0.00	0.00	952,423	952,423
Elementary School	3,000.80	0.00	0.00	5,238,328	5,238,328
High School	1,478.40	536.80	220.00	3,231,511	3,231,511
Junior High School	1,800.48	0.00	0.00	3,118,723	3,118,723
Total	7,828.72	536.80	220.00	13,673,406	13,673,406

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Day-Care Center	9.50	10.46	7.30	12.70	82.30	5.00	28	58	14
Elementary School	9.50	10.46	7.30	65.00	30.00	5.00	63	25	12
Elementary School	9.50	10.46	7.30	65.00	30.00	5.00	63	25	12
High School	9.50	10.46	7.30	77.80	17.20	5.00	75	19	6
Junior High School	9.50	10.46	7.30	72.80	22.20	5.00	63	25	12

4.4 Fleet Mix

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

Day-Care Center	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Elementary School	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
High School	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Junior High School	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.3369	381.3369	0.0381	7.8900e-003	384.6414
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.3369	381.3369	0.0381	7.8900e-003	384.6414
NaturalGas Mitigated	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990
NaturalGas Unmitigated	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Day-Care Center	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
Elementary School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Elementary School	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
High School	7.05286e+006	0.0380	0.3457	0.2904	2.0700e-003		0.0263	0.0263		0.0263	0.0263	0.0000	376.3673	376.3673	7.2100e-003	6.9000e-003	378.6039
Junior High School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Total		**0.0535**	**0.4862**	**0.4084**	**2.9100e-003**		**0.0370**	**0.0370**		**0.0370**	**0.0370**	**0.0000**	**529.2539**	**529.2539**	**0.0102**	**9.7200e-003**	**532.3990**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Day-Care Center	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
Elementary School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Elementary School	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
High School	7.05E+06	0.0380	0.3457	0.2904	2.0700e-003		0.0263	0.0263		0.0263	0.0263	0.0000	376.3673	376.3673	7.2100e-003	6.9000e-003	378.6039
Junior High School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Total		**0.0535**	**0.4862**	**0.4084**	**2.9100e-003**		**0.0370**	**0.0370**		**0.0370**	**0.0370**	**0.0000**	**529.2539**	**529.2539**	**0.0102**	**9.7200e-003**	**532.3990**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Day-Care Center	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
Elementary School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Elementary School	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
High School	2.06E+06	271.1794	0.0271	5.6100e-003	273.5293
Junior High School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Total		**381.3369**	**0.0381**	**7.8900e-003**	**384.6414**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Day-Care Center	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
Elementary School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Elementary School	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
High School	2.06155e+006	271.1794	0.0271	5.6100e-003	273.5293
Junior High School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Total		**381.3369**	**0.0381**	**7.8900e-003**	**384.6414**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3833	2.3000e-004	0.0252	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Unmitigated	2.3833	2.3000e-004	0.0252	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2805					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.3200e-003	2.3000e-004	0.0252	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Total	**2.3833**	**2.3000e-004**	**0.0252**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0490**	**0.0490**	**1.3000e-004**	**0.0000**	**0.0522**

Mitigated

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

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2805					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.3200e-003	2.3000e-004	0.0252	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Total	**2.3833**	**2.3000e-004**	**0.0252**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0490**	**0.0490**	**1.3000e-004**	**0.0000**	**0.0522**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.8845	0.0118	6.7900e-003	21.2028
Unmitigated	18.8845	0.0118	6.7900e-003	21.2028

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Day-Care Center	0.717575 / 1.84519	1.6142	1.0100e-003	5.8000e-004	1.8123

Elementary School	2.52121 / 6.48311	5.6713	3.5500e-003	2.0400e-003	6.3676
High School	3.87636 / 9.9678	8.7197	5.4600e-003	3.1300e-003	9.7902
Junior High School	1.28 / 3.29143	2.8793	1.8000e-003	1.0400e-003	3.2328
Total		**18.8845**	**0.0118**	**6.7900e-003**	**21.2028**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Day-Care Center	0.717575 / 1.84519	1.6142	1.0100e-003	5.8000e-004	1.8123
Elementary School	2.52121 / 6.48311	5.6713	3.5500e-003	2.0400e-003	6.3676
High School	3.87636 / 9.9678	8.7197	5.4600e-003	3.1300e-003	9.7902
Junior High School	1.28 / 3.29143	2.8793	1.8000e-003	1.0400e-003	3.2328
Total		**18.8845**	**0.0118**	**6.7900e-003**	**21.2028**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	101.6538	6.0076	0.0000	251.8430
Unmitigated	101.6538	6.0076	0.0000	251.8430

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	54.02	10.9656	0.6481	0.0000	27.1667
Elementary School	189.8	38.5277	2.2769	0.0000	95.4507
High School	160.6	32.6004	1.9266	0.0000	80.7660
Junior High School	96.36	19.5602	1.1560	0.0000	48.4596
Total		**101.6538**	**6.0076**	**0.0000**	**251.8430**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	54.02	10.9656	0.6481	0.0000	27.1667
Elementary School	189.8	38.5277	2.2769	0.0000	95.4507

High School	160.6	32.6004	1.9266	0.0000	80.7660
Junior High School	96.36	19.5602	1.1560	0.0000	48.4596
Total		**101.6538**	**6.0076**	**0.0000**	**251.8430**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	126	0.73	Diesel
Emergency Generator	1	0	50	166	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	0.0120	0.0335	0.0435	6.0000e-005		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	5.5596	5.5596	7.8000e-004	0.0000	5.5791
Total	**0.0120**	**0.0335**	**0.0435**	**6.0000e-005**		**1.7600e-003**	**1.7600e-003**		**1.7600e-003**	**1.7600e-003**	**0.0000**	**5.5596**	**5.5596**	**7.8000e-004**	**0.0000**	**5.5791**

11.0 Vegetation

Avenues School - Operational/GHG model 2030

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	296.00	Student	0.00	39,134.50	0
Elementary School	160.00	Student	0.00	39,134.50	0
Elementary School	880.00	Student	11.87	38,549.50	0
High School	880.00	Student	0.00	382,476.00	0
Junior High School	528.00	Student	0.00	38,549.50	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Land Use - Toddler to 12 Private School: Using Land Uses to match TIA on a 11.87-acre site. Used square footages of buildings. Divided buildings 1 and 2 square footage for the day-care, elemetnary school, and junior high buildings. Placed remaining sqft into high school land use

Construction Phase - no construction, only operational modeling

Off-road Equipment - No construction equipment

Vehicle Trips - Adjusted Trip Rate for 17% Red for students. Assuming no Trips for Daycare on Sat or Sun. High school has weekend activities Day-Care: 3.39, Elementary School: 3.41, Junior High: 3.41, High School: 1.68, 0.60, 0.25. Changed trip length for students to 10.46 based on traffic VMT memo

Energy Use -

Water And Wastewater - 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00
tblLandUse	LandUseSquareFeet	16,730.76	39,134.50
tblLandUse	LandUseSquareFeet	13,376.54	39,134.50
tblLandUse	LandUseSquareFeet	73,570.97	38,549.50
tblLandUse	LandUseSquareFeet	116,741.66	382,476.00
tblLandUse	LandUseSquareFeet	62,072.57	38,549.50
tblLandUse	LotAcreage	0.38	0.00
tblLandUse	LotAcreage	0.31	0.00
tblLandUse	LotAcreage	1.69	11.87
tblLandUse	LotAcreage	2.68	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	126.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	166.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleTrips	CC_TL	7.30	10.46
tblVehicleTrips	CC_TL	7.30	10.46
tblVehicleTrips	CC_TL	7.30	10.46
tblVehicleTrips	CC_TL	7.30	10.46

tblVehicleTrips	ST_TR	0.39	0.00
tblVehicleTrips	SU_TR	0.37	0.00
tblVehicleTrips	WD_TR	4.38	3.39
tblVehicleTrips	WD_TR	1.29	3.41
tblVehicleTrips	WD_TR	1.71	1.68
tblVehicleTrips	WD_TR	1.62	3.41
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3833	2.30E-04	0.0251	0		9.00E-05	9.00E-05		9.00E-05	9.00E-05	0	0.049	0.049	1.30E-04	0	0.0522
Energy	0.0535	0.4862	0.4084	2.92E-03		0.037	0.037		0.037	0.037	0	910.5908	910.5908	0.0483	0.0176	917.0404

Mobile	0.8647	3.7416	10.1048	0.0438	5.0833	0.0293	5.1126	1.3604	0.0272	1.3876	0	4,031.17	4,031.17	0.1153	0	4,034.05
Stationary	0.012	0.0335	0.0435	6.00E-05		1.76E-03	1.76E-03		1.76E-03	1.76E-03	0	5.5596	5.5596	7.80E-04	0	5.5791
Waste						0	0		0	0	101.6538	0	101.6538	6.0076	0	251.843
Water						0	0		0	0	2.9702	15.9143	18.8845	0.0118	6.79E-03	21.2028
Total	**3.3135**	**4.2615**	**10.5817**	**0.0468**	**5.0833**	**0.0681**	**5.1514**	**1.3604**	**0.066**	**1.4264**	**104.624**	**4,963.28**	**5,067.91**	**6.1838**	**0.0244**	**5,229.77**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3833	2.3000e-004	0.0251	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Energy	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	910.5908	910.5908	0.0483	0.0176	917.0404
Mobile	0.8647	3.7416	10.1048	0.0438	5.0833	0.0293	5.1126	1.3604	0.0272	1.3876	0.0000	4,031.1698	4,031.1698	0.1153	0.0000	4,034.0514
Stationary	0.0120	0.0335	0.0435	6.0000e-005		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	5.5596	5.5596	7.8000e-004	0.0000	5.5791
Waste						0.0000	0.0000		0.0000	0.0000	101.6538	0.0000	101.6538	6.0076	0.0000	251.8430
Water						0.0000	0.0000		0.0000	0.0000	2.9702	15.9143	18.8845	0.0118	6.7900e-003	21.2028
Total	**3.3135**	**4.2615**	**10.5817**	**0.0468**	**5.0833**	**0.0681**	**5.1514**	**1.3604**	**0.0660**	**1.4264**	**104.6240**	**4,963.2835**	**5,067.9075**	**6.1838**	**0.0244**	**5,229.7689**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8647	3.7416	10.1048	0.0438	5.0833	0.0293	5.1126	1.3604	0.0272	1.3876	0.0000	4,031.1698	4,031.1698	0.1153	0.0000	4,034.0514
Unmitigated	0.8647	3.7416	10.1048	0.0438	5.0833	0.0293	5.1126	1.3604	0.0272	1.3876	0.0000	4,031.1698	4,031.1698	0.1153	0.0000	4,034.0514

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Day-Care Center	1,003.44	0.00	0.00	1,132,421	1,132,421
Elementary School	545.60	0.00	0.00	952,423	952,423
Elementary School	3,000.80	0.00	0.00	5,238,328	5,238,328
High School	1,478.40	536.80	220.00	3,231,511	3,231,511
Junior High School	1,800.48	0.00	0.00	3,118,723	3,118,723
Total	7,828.72	536.80	220.00	13,673,406	13,673,406

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Day-Care Center	9.50	10.46	7.30	12.70	82.30	5.00	28	58	14
Elementary School	9.50	10.46	7.30	65.00	30.00	5.00	63	25	12
Elementary School	9.50	10.46	7.30	65.00	30.00	5.00	63	25	12
High School	9.50	10.46	7.30	77.80	17.20	5.00	75	19	6
Junior High School	9.50	10.46	7.30	72.80	22.20	5.00	63	25	12

4.4 Fleet Mix

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

Day-Care Center	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Elementary School	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
High School	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Junior High School	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.3369	381.3369	0.0381	7.8900e-003	384.6414
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.3369	381.3369	0.0381	7.8900e-003	384.6414
NaturalGas Mitigated	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990
NaturalGas Unmitigated	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Day-Care Center	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
Elementary School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Elementary School	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
High School	7.05286e+006	0.0380	0.3457	0.2904	2.0700e-003		0.0263	0.0263		0.0263	0.0263	0.0000	376.3673	376.3673	7.2100e-003	6.9000e-003	378.6039
Junior High School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Total		**0.0535**	**0.4862**	**0.4084**	**2.9100e-003**		**0.0370**	**0.0370**		**0.0370**	**0.0370**	**0.0000**	**529.2539**	**529.2539**	**0.0102**	**9.7200e-003**	**532.3990**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Day-Care Center	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
Elementary School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Elementary School	721640	3.8900e-003	0.0354	0.0297	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5095	38.5095	7.4000e-004	7.1000e-004	38.7383
High School	7.05286e+006	0.0380	0.3457	0.2904	2.0700e-003		0.0263	0.0263		0.0263	0.0263	0.0000	376.3673	376.3673	7.2100e-003	6.9000e-003	378.6039
Junior High School	710853	3.8300e-003	0.0349	0.0293	2.1000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	37.9338	37.9338	7.3000e-004	7.0000e-004	38.1592
Total		**0.0535**	**0.4862**	**0.4084**	**2.9100e-003**		**0.0370**	**0.0370**		**0.0370**	**0.0370**	**0.0000**	**529.2539**	**529.2539**	**0.0102**	**9.7200e-003**	**532.3990**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Day-Care Center	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
Elementary School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Elementary School	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
High School	2.06155e+006	271.1794	0.0271	5.6100e-003	273.5293
Junior High School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Total		**381.3369**	**0.0381**	**7.8900e-003**	**384.6414**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Day-Care Center	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
Elementary School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Elementary School	210935	27.7468	2.7700e-003	5.7000e-004	27.9872
High School	2.06155e+006	271.1794	0.0271	5.6100e-003	273.5293
Junior High School	207782	27.3320	2.7300e-003	5.7000e-004	27.5688
Total		**381.3369**	**0.0381**	**7.8900e-003**	**384.6414**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3833	2.3000e-004	0.0251	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Unmitigated	2.3833	2.3000e-004	0.0251	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2805					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.3000e-003	2.3000e-004	0.0251	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Total	**2.3833**	**2.3000e-004**	**0.0251**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0490**	**0.0490**	**1.3000e-004**	**0.0000**	**0.0522**

Mitigated

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

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2805					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.3000e-003	2.3000e-004	0.0251	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.0490	0.0490	1.3000e-004	0.0000	0.0522
Total	**2.3833**	**2.3000e-004**	**0.0251**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.0490**	**0.0490**	**1.3000e-004**	**0.0000**	**0.0522**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.8845	0.0118	6.7900e-003	21.2028
Unmitigated	18.8845	0.0118	6.7900e-003	21.2028

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Day-Care Center	0.717575 / 1.84519	1.6142	1.0100e-003	5.8000e-004	1.8123

Elementary School	2.52121 / 6.48311	5.6713	3.5500e-003	2.0400e-003	6.3676
High School	3.87636 / 9.9678	8.7197	5.4600e-003	3.1300e-003	9.7902
Junior High School	1.28 / 3.29143	2.8793	1.8000e-003	1.0400e-003	3.2328
Total		**18.8845**	**0.0118**	**6.7900e-003**	**21.2028**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Day-Care Center	0.717575 / 1.84519	1.6142	1.0100e-003	5.8000e-004	1.8123
Elementary School	2.52121 / 6.48311	5.6713	3.5500e-003	2.0400e-003	6.3676
High School	3.87636 / 9.9678	8.7197	5.4600e-003	3.1300e-003	9.7902
Junior High School	1.28 / 3.29143	2.8793	1.8000e-003	1.0400e-003	3.2328
Total		**18.8845**	**0.0118**	**6.7900e-003**	**21.2028**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	101.6538	6.0076	0.0000	251.8430
Unmitigated	101.6538	6.0076	0.0000	251.8430

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	54.02	10.9656	0.6481	0.0000	27.1667
Elementary School	189.8	38.5277	2.2769	0.0000	95.4507
High School	160.6	32.6004	1.9266	0.0000	80.7660
Junior High School	96.36	19.5602	1.1560	0.0000	48.4596
Total		**101.6538**	**6.0076**	**0.0000**	**251.8430**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	54.02	10.9656	0.6481	0.0000	27.1667
Elementary School	189.8	38.5277	2.2769	0.0000	95.4507

High School	160.6	32.6004	1.9266	0.0000	80.7660
Junior High School	96.36	19.5602	1.1560	0.0000	48.4596
Total		**101.6538**	**6.0076**	**0.0000**	**251.8430**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	126	0.73	Diesel
Emergency Generator	1	0	50	166	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	0.0120	0.0335	0.0435	6.0000e-005		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	5.5596	5.5596	7.8000e-004	0.0000	5.5791
Total	**0.0120**	**0.0335**	**0.0435**	**6.0000e-005**		**1.7600e-003**	**1.7600e-003**		**1.7600e-003**	**1.7600e-003**	**0.0000**	**5.5596**	**5.5596**	**7.8000e-004**	**0.0000**	**5.5791**

11.0 Vegetation

Avenues School - Existing Land Uses

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	150.43	1000sqft	11.87	150,426.00	0
General Office Building	60.00	1000sqft	0.00	60,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Existing Land uses. The site includes 362,568 square feet of existing buildings with approximately 150,426 square feet of warehouse structures and 212,142 square feet of office space. The 1401 Parkmoor Avenue (60,000-sf) office building was included but not the 550 & 570 Meridian Avenue offices

Construction Phase - No construction, only operational

Off-road Equipment - No Construction Equipment

Vehicle Trips - Daily = 5*(AM+PM) --> Daily = 5*(54+181) --> 1,175 daily trips/210,426 sqft --> Industiral 5.58, 1.06, 0.54; Office 5.58, 1.24, 0.53

Energy Use -

Water And Wastewater - 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	7/14/2020	6/30/2020
tblEnergyUse	T24E	6.11	6.11
tblEnergyUse	T24E	1.48	1.48
tblEnergyUse	T24NG	16.31	16.31
tblEnergyUse	T24NG	19.71	19.71
tblLandUse	LandUseSquareFeet	150,430.00	150,426.00
tblLandUse	LotAcreage	3.45	11.87
tblLandUse	LotAcreage	1.38	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleTrips	ST_TR	2.46	1.24
tblVehicleTrips	ST_TR	1.32	1.06
tblVehicleTrips	SU_TR	1.05	0.53
tblVehicleTrips	SU_TR	0.68	0.54
tblVehicleTrips	WD_TR	11.03	5.58
tblVehicleTrips	WD_TR	6.97	5.58
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9317	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.00E-03
Energy	0.0267	0.2426	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	568.3097	568.3097	0.0355	0.0111	572.5151
Mobile	0.1705	0.6975	2.1211	8.5800e-003	0.9141	6.6300e-003	0.9207	0.2447	6.1600e-003	0.2508	0.0000	787.3856	787.3856	0.0231	0.0000	787.9629
Waste						0.0000	0.0000		0.0000	0.0000	49.1908	0.0000	49.1908	2.9071	0.0000	121.8681
Water						0.0000	0.0000		0.0000	0.0000	16.0806	35.3599	51.4405	0.0589	0.0357	63.5517
Total	**1.1289**	**0.9402**	**2.3269**	**0.01**	**0.9141**	**0.0251**	**0.9392**	**0.2447**	**0.0246**	**0.2693**	**65.2714**	**1,391.06**	**1,456.33**	**3.0246**	**0.0468**	**1,545.90**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9317	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003
Energy	0.0267	0.2426	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	568.3097	568.3097	0.0355	0.0111	572.5151
Mobile	0.1705	0.6975	2.1211	8.5800e-003	0.9141	6.6300e-003	0.9207	0.2447	6.1600e-003	0.2508	0.0000	787.3856	787.3856	0.0231	0.0000	787.9629
Waste						0.0000	0.0000		0.0000	0.0000	49.1908	0.0000	49.1908	2.9071	0.0000	121.8681
Water						0.0000	0.0000		0.0000	0.0000	16.0806	35.3599	51.4405	0.0589	0.0357	63.5517

Total	**1.1289**	**0.9402**	**2.3269**	**0.0100**	**0.9141**	**0.0251**	**0.9392**	**0.2447**	**0.0246**	**0.2693**	**65.2714**	**1,391.0590**	**1,456.3304**	**3.0246**	**0.0468**	**1,545.9019**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1705	0.6975	2.1211	8.5800e-003	0.9141	6.6300e-003	0.9207	0.2447	6.1600e-003	0.2508	0.0000	787.3856	787.3856	0.0231	0.0000	787.9629
Unmitigated	0.1705	0.6975	2.1211	8.5800e-003	0.9141	6.6300e-003	0.9207	0.2447	6.1600e-003	0.2508	0.0000	787.3856	787.3856	0.0231	0.0000	787.9629

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	334.80	74.40	31.80	607,748	607,748
General Light Industry	839.40	159.46	81.23	1,850,839	1,850,839
Total	1,174.20	233.86	113.03	2,458,587	2,458,587

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
General Light Industry	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	304.1675	304.1675	0.0304	6.2900e-003	306.8032
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	304.1675	304.1675	0.0304	6.2900e-003	306.8032
NaturalGas Mitigated	0.0267	0.2426	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1422	264.1422	5.0600e-003	4.8400e-003	265.7119
NaturalGas Unmitigated	0.0267	0.2426	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1422	264.1422	5.0600e-003	4.8400e-003	265.7119

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.97E+06	0.0214	0.1945	0.1634	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.7416	211.7416	4.0600e-003	3.8800e-003	212.9998
General Office Building	981952	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4007	52.4007	1.0000e-003	9.6000e-004	52.7121
Total		**0.0267**	**0.2426**	**0.2038**	**1.4600e-003**		**0.0184**	**0.0184**		**0.0184**	**0.0184**	**0.0000**	**264.1422**	**264.1422**	**5.0600e-003**	**4.8400e-003**	**265.7119**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.96789e+006	0.0214	0.1945	0.1634	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.7416	211.7416	4.0600e-003	3.8800e-003	212.9998
General Office Building	981952	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4007	52.4007	1.0000e-003	9.6000e-004	52.7121
Total		**0.0267**	**0.2426**	**0.2038**	**1.4600e-003**		**0.0184**	**0.0184**		**0.0184**	**0.0184**	**0.0000**	**264.1422**	**264.1422**	**5.0600e-003**	**4.8400e-003**	**265.7119**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.24E+06	163.4737	0.0164	3.3800e-003	164.8903
General Office Building	1.07E+06	140.6938	0.0141	2.9100e-003	141.9130
Total		**304.1675**	**0.0304**	**6.2900e-003**	**306.8032**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.24275e+006	163.4737	0.0164	3.3800e-003	164.8903
General Office Building	1.06957e+006	140.6938	0.0141	2.9100e-003	141.9130
Total		**304.1675**	**0.0304**	**6.2900e-003**	**306.8032**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9317	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003
Unmitigated	0.9317	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1097					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003
Total	**0.9317**	**2.0000e-005**	**1.9300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.7600e-003**	**3.7600e-003**	**1.0000e-005**	**0.0000**	**4.0000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1097					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003
Total	**0.9317**	**2.0000e-005**	**1.9300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.7600e-003**	**3.7600e-003**	**1.0000e-005**	**0.0000**	**4.0000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	51.4405	0.0589	0.0357	63.5517
Unmitigated	51.4405	0.0589	0.0357	63.5517

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	34.7869 / 0	37.0681	0.0448	0.0273	46.3177
General Office Building	10.664 / 6.53602	14.3725	0.0141	8.4200e-003	17.2340
Total		**51.4405**	**0.0589**	**0.0357**	**63.5517**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

General Light Industry	34.7869 / 0	37.0681	0.0448	0.0273	46.3177
General Office Building	10.664 / 6.53602	14.3725	0.0141	8.4200e-003	17.2340
Total		**51.4405**	**0.0589**	**0.0357**	**63.5517**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	49.1908	2.9071	0.0000	121.8681
Unmitigated	49.1908	2.9071	0.0000	121.8681

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	186.53	37.8639	2.2377	0.0000	93.8062
General Office Building	55.8	11.3269	0.6694	0.0000	28.0619

Total		**49.1908**	**2.9071**	**0.0000**	**121.8681**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	186.53	37.8639	2.2377	0.0000	93.8062
General Office Building	55.8	11.3269	0.6694	0.0000	28.0619
Total		**49.1908**	**2.9071**	**0.0000**	**121.8681**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Avenues School - Existing Land Uses - Santa Clara County, Annual

Avenues School - Existing Land Uses 2030

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	60.00	1000sqft	0.00	60,000.00	0
General Light Industry	150.43	1000sqft	11.87	150,426.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - approximately 150,426 square feet of warehouse structures and 60,000 square feet of office space. The 1401 Parkmoor Avenue (60,000-sf) office building was included but not the 550 & 570 Meridian Avenue offices

Vehicle Trips - Daily = 5*(AM+PM) --> Daily = 5*(54+181) --> 1,175 daily trips/210,426 sqft --> Industiral 5.58, 1.06, 0.54; Office 5.58, 1.24, 0.53

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
tblLandUse	LandUseSquareFeet	150,430.00	150,426.00

tblLandUse	LotAcreage	1.38	0.00
tblLandUse	LotAcreage	3.45	11.87
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleTrips	ST_TR	1.32	1.06
tblVehicleTrips	ST_TR	2.46	1.24
tblVehicleTrips	SU_TR	0.68	0.54
tblVehicleTrips	SU_TR	1.05	0.53
tblVehicleTrips	WD_TR	6.97	5.58
tblVehicleTrips	WD_TR	11.03	5.58
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

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

Area	0.9317	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.00E-03
Energy	0.0267	0.2427	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	568.3408	568.3408	0.0355	0.0111	572.5464
Mobile	0.1425	0.6212	1.7602	7.8000e-003	0.9140	5.1600e-003	0.9192	0.2446	4.8000e-003	0.2494	0.0000	717.6343	717.6343	0.0201	0.0000	718.1367
Waste						0.0000	0.0000		0.0000	0.0000	49.1908	0.0000	49.1908	2.9071	0.0000	121.8681
Water						0.0000	0.0000		0.0000	0.0000	16.0806	35.3599	51.4405	0.0589	0.0357	63.5517
Total	**1.1009**	**0.8639**	**1.9660**	**9.2600e-003**	**0.9140**	**0.0236**	**0.9376**	**0.2446**	**0.0233**	**0.2679**	**65.2714**	**1,321.3387**	**1,386.6102**	**3.0216**	**0.0468**	**1,476.1070**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9317	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003
Energy	0.0267	0.2427	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	568.3408	568.3408	0.0355	0.0111	572.5464
Mobile	0.1425	0.6212	1.7602	7.8000e-003	0.9140	5.1600e-003	0.9192	0.2446	4.8000e-003	0.2494	0.0000	717.6343	717.6343	0.0201	0.0000	718.1367
Waste						0.0000	0.0000		0.0000	0.0000	49.1908	0.0000	49.1908	2.9071	0.0000	121.8681
Water						0.0000	0.0000		0.0000	0.0000	16.0806	35.3599	51.4405	0.0589	0.0357	63.5517
Total	**1.1009**	**0.8639**	**1.9660**	**9.2600e-003**	**0.9140**	**0.0236**	**0.9376**	**0.2446**	**0.0233**	**0.2679**	**65.2714**	**1,321.3387**	**1,386.6102**	**3.0216**	**0.0468**	**1,476.1070**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1425	0.6212	1.7602	7.8000e-003	0.9140	5.1600e-003	0.9192	0.2446	4.8000e-003	0.2494	0.0000	717.6343	717.6343	0.0201	0.0000	718.1367
Unmitigated	0.1425	0.6212	1.7602	7.8000e-003	0.9140	5.1600e-003	0.9192	0.2446	4.8000e-003	0.2494	0.0000	717.6343	717.6343	0.0201	0.0000	718.1367

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	839.40	159.46	81.23	1,850,839	1,850,839
General Office Building	334.80	74.40	31.80	607,748	607,748
Total	1,174.20	233.86	113.03	2,458,587	2,458,587

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
General Office Building	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	304.1665	304.1665	0.0304	6.2900e-003	306.8023
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	304.1665	304.1665	0.0304	6.2900e-003	306.8023
NaturalGas Mitigated	0.0267	0.2427	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1742	264.1742	5.0600e-003	4.8400e-003	265.7441
NaturalGas Unmitigated	0.0267	0.2427	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1742	264.1742	5.0600e-003	4.8400e-003	265.7441

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.96824e+006	0.0214	0.1945	0.1634	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.7603	211.7603	4.0600e-003	3.8800e-003	213.0187
General Office Building	982200	5.3000e-003	0.0482	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4139	52.4139	1.0000e-003	9.6000e-004	52.7254
Total		**0.0267**	**0.2427**	**0.2038**	**1.4600e-003**		**0.0184**	**0.0184**		**0.0184**	**0.0184**	**0.0000**	**264.1742**	**264.1742**	**5.0600e-003**	**4.8400e-003**	**265.7441**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.96824e+006	0.0214	0.1945	0.1634	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.7603	211.7603	4.0600e-003	3.8800e-003	213.0187
General Office Building	982200	5.3000e-003	0.0482	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4139	52.4139	1.0000e-003	9.6000e-004	52.7254
Total		**0.0267**	**0.2427**	**0.2038**	**1.4600e-003**		**0.0184**	**0.0184**		**0.0184**	**0.0184**	**0.0000**	**264.1742**	**264.1742**	**5.0600e-003**	**4.8400e-003**	**265.7441**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.24252e+006	163.4431	0.0163	3.3800e-003	164.8595
General Office Building	1.0698e+006	140.7234	0.0141	2.9100e-003	141.9429
Total		**304.1665**	**0.0304**	**6.2900e-003**	**306.8023**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.24252e+006	163.4431	0.0163	3.3800e-003	164.8595

General Office Building	1.0698e+006	140.7234	0.0141	2.9100e-003	141.9429
Total		**304.1665**	**0.0304**	**6.2900e-003**	**306.8023**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9317	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003
Unmitigated	0.9317	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1097					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003

Total	**0.9317**	**2.0000e-005**	**1.9200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.7600e-003**	**3.7600e-003**	**1.0000e-005**	**0.0000**	**4.0000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1097					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7600e-003	3.7600e-003	1.0000e-005	0.0000	4.0000e-003
Total	**0.9317**	**2.0000e-005**	**1.9200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.7600e-003**	**3.7600e-003**	**1.0000e-005**	**0.0000**	**4.0000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	51.4405	0.0589	0.0357	63.5517
Unmitigated	51.4405	0.0589	0.0357	63.5517

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	34.7869 / 0	37.0681	0.0448	0.0273	46.3177
General Office Building	10.664 / 6.53602	14.3725	0.0141	8.4200e-003	17.2340
Total		**51.4405**	**0.0589**	**0.0357**	**63.5517**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	34.7869 / 0	37.0681	0.0448	0.0273	46.3177
General Office Building	10.664 / 6.53602	14.3725	0.0141	8.4200e-003	17.2340
Total		**51.4405**	**0.0589**	**0.0357**	**63.5517**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	49.1908	2.9071	0.0000	121.8681
Unmitigated	49.1908	2.9071	0.0000	121.8681

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	186.53	37.8639	2.2377	0.0000	93.8062
General Office Building	55.8	11.3269	0.6694	0.0000	28.0619
Total		**49.1908**	**2.9071**	**0.0000**	**121.8681**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	186.53	37.8639	2.2377	0.0000	93.8062

General Office Building	55.8	11.3269	0.6694	0.0000	28.0619
Total		**49.1908**	**2.9071**	**0.0000**	**121.8681**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Avenues School - Ooperational/GHG model - Santa Clara County, Annual

Avenues School - Electricity Model Output (Not for Critiera or GHG)

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	537.84	1000sqft	11.87	537,844.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Land Use - Electricty model for Avenues World School, using sqft

Construction Phase - no construction, only operational modeling

Off-road Equipment - No construction equipment

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	7/14/2020	6/30/2020
tblLandUse	LotAcreage	12.35	11.87

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	WorkerTripNumber	0.00	18.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3815	4.0000e-005	4.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	2.0000e-005	0.0000	0.0102
Energy	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	910.5908	910.5908	0.0483	0.0176	917.0404
Mobile	1.0197	4.1436	12.4070	0.0497	5.2811	0.0386	5.3197	1.4135	0.0359	1.4493	0.0000	4,565.3399	4,565.3399	0.1350	0.0000	4,568.7153
Waste						0.0000	0.0000		0.0000	0.0000	141.9293	0.0000	141.9293	8.3878	0.0000	351.6237
Water						0.0000	0.0000		0.0000	0.0000	5.6658	33.8540	39.5198	0.5853	0.0144	58.4560
Total	**3.4546**	**4.6298**	**12.8203**	**0.0527**	**5.2811**	**0.0755**	**5.3567**	**1.4135**	**0.0728**	**1.4863**	**147.5950**	**5,509.7942**	**5,657.3893**	**9.1564**	**0.0320**	**5,895.8457**

Mitigated Operational

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

Area	2.3815	4.0000e-005	4.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	2.0000e-005	0.0000	0.0102
Energy	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	910.5908	910.5908	0.0483	0.0176	917.0404
Mobile	1.0197	4.1436	12.4070	0.0497	5.2811	0.0386	5.3197	1.4135	0.0359	1.4493	0.0000	4,565.3399	4,565.3399	0.1350	0.0000	4,568.7153
Waste						0.0000	0.0000		0.0000	0.0000	141.9293	0.0000	141.9293	8.3878	0.0000	351.6237
Water						0.0000	0.0000		0.0000	0.0000	5.6658	33.8540	39.5198	0.5853	0.0144	58.4560
Total	**3.4546**	**4.6298**	**12.8203**	**0.0527**	**5.2811**	**0.0755**	**5.3567**	**1.4135**	**0.0728**	**1.4863**	**147.5950**	**5,509.7942**	**5,657.3893**	**9.1564**	**0.0320**	**5,895.8457**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0197	4.1436	12.4070	0.0497	5.2811	0.0386	5.3197	1.4135	0.0359	1.4493	0.0000	4,565.3399	4,565.3399	0.1350	0.0000	4,568.7153
Unmitigated	1.0197	4.1436	12.4070	0.0497	5.2811	0.0386	5.3197	1.4135	0.0359	1.4493	0.0000	4,565.3399	4,565.3399	0.1350	0.0000	4,568.7153

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

High School	6,932.81	2,350.38	962.74	14,204,335	14,204,335
Total	6,932.81	2,350.38	962.74	14,204,335	14,204,335

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.3369	381.3369	0.0381	7.8900e-003	384.6414
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	381.3369	381.3369	0.0381	7.8900e-003	384.6414
NaturalGas Mitigated	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990
NaturalGas Unmitigated	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	9.91784e+006	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990
Total		**0.0535**	**0.4862**	**0.4084**	**2.9200e-003**		**0.0370**	**0.0370**		**0.0370**	**0.0370**	**0.0000**	**529.2539**	**529.2539**	**0.0101**	**9.7000e-003**	**532.3990**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	9.91784e+006	0.0535	0.4862	0.4084	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	529.2539	529.2539	0.0101	9.7000e-003	532.3990
Total		**0.0535**	**0.4862**	**0.4084**	**2.9200e-003**		**0.0370**	**0.0370**		**0.0370**	**0.0370**	**0.0000**	**529.2539**	**529.2539**	**0.0101**	**9.7000e-003**	**532.3990**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	2.89898e+006	381.3369	0.0381	7.8900e-003	384.6414

Total		**381.3369**	**0.0381**	**7.8900e-003**	**384.6414**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	2.89898e+006	381.3369	0.0381	7.8900e-003	384.6414
Total		**381.3369**	**0.0381**	**7.8900e-003**	**384.6414**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3815	4.0000e-005	4.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	2.0000e-005	0.0000	0.0102
Unmitigated	2.3815	4.0000e-005	4.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	2.0000e-005	0.0000	0.0102

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2805					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.5000e-004	4.0000e-005	4.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	2.0000e-005	0.0000	0.0102
Total	**2.3815**	**4.0000e-005**	**4.9300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.6100e-003**	**9.6100e-003**	**2.0000e-005**	**0.0000**	**0.0102**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2805					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.5000e-004	4.0000e-005	4.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.6100e-003	9.6100e-003	2.0000e-005	0.0000	0.0102
Total	**2.3815**	**4.0000e-005**	**4.9300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.6100e-003**	**9.6100e-003**	**2.0000e-005**	**0.0000**	**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	39.5198	0.5853	0.0144	58.4560
Unmitigated	39.5198	0.5853	0.0144	58.4560

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	17.8588 / 45.9226	39.5198	0.5853	0.0144	58.4560
Total		**39.5198**	**0.5853**	**0.0144**	**58.4560**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

High School	17.8588 / 45.9226	39.5198	0.5853	0.0144	58.4560
Total		**39.5198**	**0.5853**	**0.0144**	**58.4560**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	141.9293	8.3878	0.0000	351.6237
Unmitigated	141.9293	8.3878	0.0000	351.6237

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	699.19	141.9293	8.3878	0.0000	351.6237
Total		**141.9293**	**8.3878**	**0.0000**	**351.6237**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	699.19	141.9293	8.3878	0.0000	351.6237
Total		**141.9293**	**8.3878**	**0.0000**	**351.6237**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment 3: Project and I-280 Community Risk Calculations

Construction Modeling and Health Risk Calculations Information

Avenues Silicon Valley Schools, San Jose, CA

DPM Emissions and Modeling Emission Rates - Without Mitigation

Construction Year	Construction Area	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2020	Phase 1	0.0887	P1_DPM	177.4	0.05400	6.80E-03	28,027	2.43E-07
2021	Phase 1	0.0787	P1_DPM	157.4	0.04791	6.04E-03	28,027	2.15E-07
2022	Phase 2	0.0839	P2_DPM	167.8	0.05108	6.44E-03	2,778	2.32E-06
2023	Phase 3	0.0876	P3_DPM	175.2	0.05333	6.72E-03	7,992	8.41E-07
2024	Phase 3	0.0040	P3_DPM	8.1	0.00245	3.09E-04	7,992	3.87E-08
2025	Phase 4	0.0422	P4_DPM	84.4	0.02569	3.24E-03	2,202	1.47E-06
Total		***0.3429***		***685.9***	***0.2088***	***0.0263***		

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Avenues Silicon Valley Schools, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Without Mitigation

Construction Year	Construction Area	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2020	Phase 1	P1_FUG	0.1109	221.8	0.06752	8.51E-03	28,027	3.04E-07
2021	Phase 1	P1_FUG	0.00028	0.6	0.00017	2.15E-05	28,027	7.66E-10
2022	Phase 2	P2_FUG	0.0120	24.0	0.00731	9.21E-04	2,778	3.31E-07
2023	Phase 3	P3_FUG	0.0417	83.4	0.02539	3.20E-03	7,992	4.00E-07
2024	Phase 3	P3_FUG	0.00006	0.1	0.00004	4.60E-06	7,992	5.76E-10
2025	Phase 4	P4_FUG	0.00915	18.3	0.00557	7.02E-04	2,202	3.19E-07
Total			***0.16494***	***329.9***	***0.1004***	***0.0127***		

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Avenues Silicon Valley School, San Jose - DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Unmitigated Emissions
Off-Site Residential Receptors (1.5 meter receptor heights)

Receptor Information

Number of Receptors	382
Receptor Height =	1.5 meters
Receptor spacing =	at specific residential locations

Meteorological Conditions

San Jose Airport Hourly Data	2006-2010
Land Use Classification	Urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu g/m^3$)	PM2.5 Concentration ($\mu g/m^3$)
2020	0.01798	0.12161
2021	0.01591	0.04306
2022	0.02007	0.03843
2023	0.17137	0.27887
2024	0.00789	0.00804
2025	0.01691	0.03334

Avenues Silicon Valley School, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
Off-Site Residential Receptors (1.5 meter receptor heights)
Residential Infant/Child 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

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00

	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			
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Maximum Total PM2.5
1	2022	0.25	-0.25 - 0*	10	0.02007	0.27	
1	2022	1	1	10	0.02007	3.30	0.03843
2	2023	1	2	10	0.17137	28.15	0.27887
3	2024	1	3	3	0.00789	0.20	0.00804
4	2025	1	4	3	0.01691	0.44	0.03334
5	2026	1	5	3		0.00	
6	2027	1	6	3		0.00	
7	2028	1	7	3		0.00	
8	2029	1	8	3		0.00	
9	2030	1	9	3		0.00	
10	2031	1	10	3		0.00	
11	2032	1	11	3		0.00	
12	2033	1	12	3		0.00	
13	2034	1	13	3		0.00	
14	2035	1	14	3		0.00	
15	2036	1	15	3		0.00	
16	2037	1	16	3		0.00	
17	2038	1	17	1		0.00	
18	2039	1	18	1		0.00	
19	2040	1	19	1		0.00	
20	2041	1	20	1		0.00	
21	2042	1	21	1		0.00	
22	2043	1	22	1		0.00	
23	2044	1	23	1		0.00	
24	2045	1	24	1		0.00	
25	2046	1	25	1		0.00	
26	2047	1	26	1		0.00	
27	2048	1	27	1		0.00	
28	2048	1	28	1		0.00	
29	2048	1	29	1		0.00	
30	2048	1	30	1		0.00	
Total Increased Cancer Risk						**32.36**	

* Third trimester of pregnancy

Local Area Roads & Project Generators – Project Traffic and Emergency Generators Emissions, Modeling and Project Health Risk Calculations Information

Project Traffic Emissions– Meridian Avenue

Avenues Silicon Valley School, San Jose, CA
Project Operation - Meridain Ave Emissions
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Meridian Avenue

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
N_MR_DPM	Northbound Meridian Road	N	2	776.0	0.48	13.32	43.7	3.4	variable	2,868
S_MR_DPM	Southbound Meridian Road	S	2	776.0	0.48	13.32	43.7	3.4	variable	2,868
									Total	5,735

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.000662	0.000743		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_MR_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	112	9.94E-06	9	6.44%	185	1.84E-05	17	5.52%	158	1.58E-05
2	2.59%	74	6.58E-06	10	7.25%	208	1.84E-05	18	3.34%	96	9.52E-06
3	2.82%	81	7.16E-06	11	6.33%	181	1.61E-05	19	2.42%	69	6.14E-06
4	3.39%	97	8.63E-06	12	6.90%	198	1.75E-05	20	0.92%	26	2.34E-06
5	2.19%	63	5.56E-06	13	6.27%	180	1.59E-05	21	2.99%	86	7.60E-06
6	3.39%	97	8.63E-06	14	6.15%	176	1.56E-05	22	4.14%	119	1.05E-05
7	6.10%	175	1.55E-05	15	5.12%	147	1.30E-05	23	2.47%	71	6.29E-06
8	4.66%	134	1.33E-05	16	3.85%	110	9.80E-06	24	0.86%	25	2.19E-06
								Total		2,868	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_MR_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	112	9.94E-06	9	6.44%	185	1.84E-05	17	5.52%	158	1.58E-05
2	2.59%	74	6.58E-06	10	7.25%	208	1.84E-05	18	3.34%	96	9.52E-06
3	2.82%	81	7.16E-06	11	6.33%	181	1.61E-05	19	2.42%	69	6.14E-06
4	3.39%	97	8.63E-06	12	6.90%	198	1.75E-05	20	0.92%	26	2.34E-06
5	2.19%	63	5.56E-06	13	6.27%	180	1.59E-05	21	2.99%	86	7.60E-06
6	3.39%	97	8.63E-06	14	6.15%	176	1.56E-05	22	4.14%	119	1.05E-05
7	6.10%	175	1.55E-05	15	5.12%	147	1.30E-05	23	2.47%	71	6.29E-06
8	4.66%	134	1.33E-05	16	3.85%	110	9.80E-06	24	0.86%	25	2.19E-06
								Total		2,868	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Meridain Ave Emissions
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_MR_PM25	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	2,868
S_MR_PM25	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	2,868
									Total	5,735

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.00186	0.00262		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_MR_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	33	8.23E-06	9	7.11%	204	7.16E-05	17	7.39%	212	7.44E-05
2	0.42%	12	3.00E-06	10	4.39%	126	3.14E-05	18	8.17%	234	8.23E-05
3	0.41%	12	2.92E-06	11	4.67%	134	3.34E-05	19	5.70%	163	4.07E-05
4	0.27%	8	1.91E-06	12	5.89%	169	4.21E-05	20	4.27%	123	3.05E-05
5	0.50%	14	3.57E-06	13	6.15%	176	4.39E-05	21	3.26%	93	2.33E-05
6	0.91%	26	6.48E-06	14	6.03%	173	4.31E-05	22	3.30%	95	2.36E-05
7	3.79%	109	2.71E-05	15	7.01%	201	5.01E-05	23	2.46%	70	1.76E-05
8	7.76%	223	7.82E-05	16	7.13%	205	5.10E-05	24	1.86%	53	1.33E-05
								Total		2,868	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_MR_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	33	8.23E-06	9	7.11%	204	7.16E-05	17	7.39%	212	7.44E-05
2	0.42%	12	3.00E-06	10	4.39%	126	3.14E-05	18	8.17%	234	8.23E-05
3	0.41%	12	2.92E-06	11	4.67%	134	3.34E-05	19	5.70%	163	4.07E-05
4	0.27%	8	1.91E-06	12	5.89%	169	4.21E-05	20	4.27%	123	3.05E-05
5	0.50%	14	3.57E-06	13	6.15%	176	4.39E-05	21	3.26%	93	2.33E-05
6	0.91%	26	6.48E-06	14	6.03%	173	4.31E-05	22	3.30%	95	2.36E-05
7	3.79%	109	2.71E-05	15	7.01%	201	5.01E-05	23	2.46%	70	1.76E-05
8	7.76%	223	7.82E-05	16	7.13%	205	5.10E-05	24	1.86%	53	1.33E-05
								Total		2,868	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Meridain Ave Emissions
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Meridian Avenue

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
N_MR_TEX	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	2,868
S_MR_TEX	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	2,868
									Total	5,735

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.03451	0.05182		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_MR_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	33	1.53E-04	9	7.11%	204	1.42E-03	17	7.39%	212	1.47E-03
2	0.42%	12	5.56E-05	10	4.39%	126	5.82E-04	18	8.17%	234	1.63E-03
3	0.41%	12	5.42E-05	11	4.67%	134	6.19E-04	19	5.70%	163	7.55E-04
4	0.27%	8	3.54E-05	12	5.89%	169	7.81E-04	20	4.27%	123	5.66E-04
5	0.50%	14	6.62E-05	13	6.15%	176	8.15E-04	21	3.26%	93	4.32E-04
6	0.91%	26	1.20E-04	14	6.03%	173	8.00E-04	22	3.30%	95	4.38E-04
7	3.79%	109	5.03E-04	15	7.01%	201	9.29E-04	23	2.46%	70	3.26E-04
8	7.76%	223	1.54E-03	16	7.13%	205	9.46E-04	24	1.86%	53	2.47E-04
								Total		2,868	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_MR_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	33	1.53E-04	9	7.11%	204	1.42E-03	17	7.39%	212	1.47E-03
2	0.42%	12	5.56E-05	10	4.39%	126	5.82E-04	18	8.17%	234	1.63E-03
3	0.41%	12	5.42E-05	11	4.67%	134	6.19E-04	19	5.70%	163	7.55E-04
4	0.27%	8	3.54E-05	12	5.89%	169	7.81E-04	20	4.27%	123	5.66E-04
5	0.50%	14	6.62E-05	13	6.15%	176	8.15E-04	21	3.26%	93	4.32E-04
6	0.91%	26	1.20E-04	14	6.03%	173	8.00E-04	22	3.30%	95	4.38E-04
7	3.79%	109	5.03E-04	15	7.01%	201	9.29E-04	23	2.46%	70	3.26E-04
8	7.76%	223	1.54E-03	16	7.13%	205	9.46E-04	24	1.86%	53	2.47E-04
								Total		2,868	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Meridain Ave Emissions
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Meridian Avenue

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
N_MR_TEV	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	2,868
S_MR_TEV	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	2,868
									Total	5,735

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04053	0.05674		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_MR_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	33	1.79E-04	9	7.11%	204	1.55E-03	17	7.39%	212	1.61E-03
2	0.42%	12	6.52E-05	10	4.39%	126	6.84E-04	18	8.17%	234	1.78E-03
3	0.41%	12	6.37E-05	11	4.67%	134	7.26E-04	19	5.70%	163	8.87E-04
4	0.27%	8	4.15E-05	12	5.89%	169	9.17E-04	20	4.27%	123	6.65E-04
5	0.50%	14	7.77E-05	13	6.15%	176	9.57E-04	21	3.26%	93	5.07E-04
6	0.91%	26	1.41E-04	14	6.03%	173	9.39E-04	22	3.30%	95	5.14E-04
7	3.79%	109	5.91E-04	15	7.01%	201	1.09E-03	23	2.46%	70	3.82E-04
8	7.76%	223	1.69E-03	16	7.13%	205	1.11E-03	24	1.86%	53	2.90E-04
								Total		2,868	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_MR_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	33	1.79E-04	9	7.11%	204	1.55E-03	17	7.39%	212	1.61E-03
2	0.42%	12	6.52E-05	10	4.39%	126	6.84E-04	18	8.17%	234	1.78E-03
3	0.41%	12	6.37E-05	11	4.67%	134	7.26E-04	19	5.70%	163	8.87E-04
4	0.27%	8	4.15E-05	12	5.89%	169	9.17E-04	20	4.27%	123	6.65E-04
5	0.50%	14	7.77E-05	13	6.15%	176	9.57E-04	21	3.26%	93	5.07E-04
6	0.91%	26	1.41E-04	14	6.03%	173	9.39E-04	22	3.30%	95	5.14E-04
7	3.79%	109	5.91E-04	15	7.01%	201	1.09E-03	23	2.46%	70	3.82E-04
8	7.76%	223	1.69E-03	16	7.13%	205	1.11E-03	24	1.86%	53	2.90E-04
								Total		2,868	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Meridain Ave Emissions
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_MR_FUG	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	2,868
S_MR_FUG	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	2,868
									Total	5,735

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_MR_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	33	1.49E-04	9	7.11%	204	9.23E-04	17	7.39%	212	9.58E-04
2	0.42%	12	5.44E-05	10	4.39%	126	5.70E-04	18	8.17%	234	1.06E-03
3	0.41%	12	5.31E-05	11	4.67%	134	6.06E-04	19	5.70%	163	7.39E-04
4	0.27%	8	3.46E-05	12	5.89%	169	7.65E-04	20	4.27%	123	5.55E-04
5	0.50%	14	6.48E-05	13	6.15%	176	7.98E-04	21	3.26%	93	4.23E-04
6	0.91%	26	1.18E-04	14	6.03%	173	7.83E-04	22	3.30%	95	4.28E-04
7	3.79%	109	4.92E-04	15	7.01%	201	9.10E-04	23	2.46%	70	3.19E-04
8	7.76%	223	1.01E-03	16	7.13%	205	9.26E-04	24	1.86%	53	2.42E-04
								Total		2,868	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_MR_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	33	1.49E-04	9	7.11%	204	9.23E-04	17	7.39%	212	9.58E-04
2	0.42%	12	5.44E-05	10	4.39%	126	5.70E-04	18	8.17%	234	1.06E-03
3	0.41%	12	5.31E-05	11	4.67%	134	6.06E-04	19	5.70%	163	7.39E-04
4	0.27%	8	3.46E-05	12	5.89%	169	7.65E-04	20	4.27%	123	5.55E-04
5	0.50%	14	6.48E-05	13	6.15%	176	7.98E-04	21	3.26%	93	4.23E-04
6	0.91%	26	1.18E-04	14	6.03%	173	7.83E-04	22	3.30%	95	4.28E-04
7	3.79%	109	4.92E-04	15	7.01%	201	9.10E-04	23	2.46%	70	3.19E-04
8	7.76%	223	1.01E-03	16	7.13%	205	9.26E-04	24	1.86%	53	2.42E-04
								Total		2,868	

Project Traffic Emissions – Race Street

Avenues Silicon Valley School, San Jose, CA
Project Operation - Race Street Emissions
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Race Street

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
N_RS_DPM	Northbound Race Street	N	2	785.3	0.49	13.32	44	3.4	variable	173
S_RS_DPM	Southbound Race Street	S	2	785.6	0.49	13.32	44	3.4	variable	173
									Total	345

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.000683	########		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_RS_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	7	6.24E-07	9	6.44%	11	1.03E-06	17	5.52%	10	8.84E-07
2	2.59%	4	4.13E-07	10	7.25%	12	1.16E-06	18	3.34%	6	5.34E-07
3	2.82%	5	4.50E-07	11	6.33%	11	1.01E-06	19	2.42%	4	3.86E-07
4	3.39%	6	5.42E-07	12	6.90%	12	1.10E-06	20	0.92%	2	1.47E-07
5	2.19%	4	3.49E-07	13	6.27%	11	1.00E-06	21	2.99%	5	4.78E-07
6	3.39%	6	5.42E-07	14	6.15%	11	9.83E-07	22	4.14%	7	6.61E-07
7	6.10%	11	9.73E-07	15	5.12%	9	8.17E-07	23	2.47%	4	3.95E-07
8	4.66%	8	7.46E-07	16	3.85%	7	6.15E-07	24	0.86%	1	1.38E-07
								Total		173	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_RS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	7	6.25E-07	9	6.44%	11	1.03E-06	17	5.52%	10	8.85E-07
2	2.59%	4	4.13E-07	10	7.25%	12	1.16E-06	18	3.34%	6	5.34E-07
3	2.82%	5	4.50E-07	11	6.33%	11	1.01E-06	19	2.42%	4	3.86E-07
4	3.39%	6	5.42E-07	12	6.90%	12	1.10E-06	20	0.92%	2	1.47E-07
5	2.19%	4	3.49E-07	13	6.27%	11	1.00E-06	21	2.99%	5	4.78E-07
6	3.39%	6	5.42E-07	14	6.15%	11	9.83E-07	22	4.14%	7	6.61E-07
7	6.10%	11	9.74E-07	15	5.12%	9	8.18E-07	23	2.47%	4	3.95E-07
8	4.66%	8	7.46E-07	16	3.85%	7	6.16E-07	24	0.86%	1	1.38E-07
								Total		173	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Race Street Emissions
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Race Street

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
N_RS_P25	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	173
S_RS_P25	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	173
									Total	345

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.00215	0.00341		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_RS_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	2	5.77E-07	9	7.11%	12	5.67E-06	17	7.39%	13	5.89E-06
2	0.42%	1	2.10E-07	10	4.39%	8	2.20E-06	18	8.17%	14	6.51E-06
3	0.41%	1	2.05E-07	11	4.67%	8	2.34E-06	19	5.70%	10	2.86E-06
4	0.27%	0	1.34E-07	12	5.89%	10	2.95E-06	20	4.27%	7	2.14E-06
5	0.50%	1	2.50E-07	13	6.15%	11	3.08E-06	21	3.26%	6	1.63E-06
6	0.91%	2	4.55E-07	14	6.03%	10	3.03E-06	22	3.30%	6	1.66E-06
7	3.79%	7	1.90E-06	15	7.01%	12	3.52E-06	23	2.46%	4	1.23E-06
8	7.76%	13	6.19E-06	16	7.13%	12	3.58E-06	24	1.86%	3	9.34E-07
								Total		173	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_RS_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	2	5.78E-07	9	7.11%	12	5.67E-06	17	7.39%	13	5.89E-06
2	0.42%	1	2.10E-07	10	4.39%	8	2.20E-06	18	8.17%	14	6.51E-06
3	0.41%	1	2.05E-07	11	4.67%	8	2.34E-06	19	5.70%	10	2.86E-06
4	0.27%	0	1.34E-07	12	5.89%	10	2.96E-06	20	4.27%	7	2.14E-06
5	0.50%	1	2.51E-07	13	6.15%	11	3.08E-06	21	3.26%	6	1.63E-06
6	0.91%	2	4.55E-07	14	6.03%	10	3.03E-06	22	3.30%	6	1.66E-06
7	3.79%	7	1.90E-06	15	7.01%	12	3.52E-06	23	2.46%	4	1.23E-06
8	7.76%	13	6.19E-06	16	7.13%	12	3.58E-06	24	1.86%	3	9.35E-07
								Total		173	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Race Street Emissions
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Race Street

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
N_RS_TEX	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	173
S_RS_TEX	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	173
									Total	345

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.04129	0.06856		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_RS_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	2	1.11E-05	9	7.11%	12	1.14E-04	17	7.39%	13	1.18E-04
2	0.42%	1	4.05E-06	10	4.39%	8	4.24E-05	18	8.17%	14	1.31E-04
3	0.41%	1	3.95E-06	11	4.67%	8	4.51E-05	19	5.70%	10	5.50E-05
4	0.27%	0	2.58E-06	12	5.89%	10	5.69E-05	20	4.27%	7	4.13E-05
5	0.50%	1	4.82E-06	13	6.15%	11	5.94E-05	21	3.26%	6	3.15E-05
6	0.91%	2	8.75E-06	14	6.03%	10	5.83E-05	22	3.30%	6	3.19E-05
7	3.79%	7	3.66E-05	15	7.01%	12	6.77E-05	23	2.46%	4	2.37E-05
8	7.76%	13	1.24E-04	16	7.13%	12	6.89E-05	24	1.86%	3	1.80E-05
								Total		173	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_RS_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	2	1.11E-05	9	7.11%	12	1.14E-04	17	7.39%	13	1.18E-04
2	0.42%	1	4.05E-06	10	4.39%	8	4.24E-05	18	8.17%	14	1.31E-04
3	0.41%	1	3.95E-06	11	4.67%	8	4.51E-05	19	5.70%	10	5.50E-05
4	0.27%	0	2.58E-06	12	5.89%	10	5.69E-05	20	4.27%	7	4.13E-05
5	0.50%	1	4.82E-06	13	6.15%	11	5.94E-05	21	3.26%	6	3.15E-05
6	0.91%	2	8.75E-06	14	6.03%	10	5.83E-05	22	3.30%	6	3.19E-05
7	3.79%	7	3.66E-05	15	7.01%	12	6.77E-05	23	2.46%	4	2.37E-05
8	7.76%	13	1.24E-04	16	7.13%	12	6.89E-05	24	1.86%	3	1.80E-05
								Total		173	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Race Street Emissions
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Race Street

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
N_RS_TEV	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	173
S_RS_TEV	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	173
									Total	345

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04728	0.07093		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_RS_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	2	1.27E-05	9	7.11%	12	1.18E-04	17	7.39%	13	1.22E-04
2	0.42%	1	4.63E-06	10	4.39%	8	4.86E-05	18	8.17%	14	1.35E-04
3	0.41%	1	4.52E-06	11	4.67%	8	5.16E-05	19	5.70%	10	6.30E-05
4	0.27%	0	2.95E-06	12	5.89%	10	6.51E-05	20	4.27%	7	4.72E-05
5	0.50%	1	5.52E-06	13	6.15%	11	6.80E-05	21	3.26%	6	3.60E-05
6	0.91%	2	1.00E-05	14	6.03%	10	6.67E-05	22	3.30%	6	3.65E-05
7	3.79%	7	4.19E-05	15	7.01%	12	7.75E-05	23	2.46%	4	2.72E-05
8	7.76%	13	1.29E-04	16	7.13%	12	7.89E-05	24	1.86%	3	2.06E-05
								Total		173	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_RS_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	2	1.27E-05	9	7.11%	12	1.18E-04	17	7.39%	13	1.23E-04
2	0.42%	1	4.64E-06	10	4.39%	8	4.86E-05	18	8.17%	14	1.36E-04
3	0.41%	1	4.52E-06	11	4.67%	8	5.16E-05	19	5.70%	10	6.30E-05
4	0.27%	0	2.95E-06	12	5.89%	10	6.52E-05	20	4.27%	7	4.73E-05
5	0.50%	1	5.52E-06	13	6.15%	11	6.80E-05	21	3.26%	6	3.60E-05
6	0.91%	2	1.00E-05	14	6.03%	10	6.67E-05	22	3.30%	6	3.65E-05
7	3.79%	7	4.20E-05	15	7.01%	12	7.75E-05	23	2.46%	4	2.72E-05
8	7.76%	13	1.29E-04	16	7.13%	12	7.89E-05	24	1.86%	3	2.06E-05
								Total		173	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Race Street Emissions
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Race Street

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
N_RS_FUG	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	173
S_RS_FUG	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	173
									Total	345

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_RS_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	2	9.09E-06	9	7.11%	12	5.62E-05	17	7.39%	13	5.84E-05
2	0.42%	1	3.31E-06	10	4.39%	8	3.47E-05	18	8.17%	14	6.45E-05
3	0.41%	1	3.23E-06	11	4.67%	8	3.69E-05	19	5.70%	10	4.50E-05
4	0.27%	0	2.11E-06	12	5.89%	10	4.65E-05	20	4.27%	7	3.38E-05
5	0.50%	1	3.95E-06	13	6.15%	11	4.86E-05	21	3.26%	6	2.57E-05
6	0.91%	2	7.16E-06	14	6.03%	10	4.77E-05	22	3.30%	6	2.61E-05
7	3.79%	7	3.00E-05	15	7.01%	12	5.54E-05	23	2.46%	4	1.94E-05
8	7.76%	13	6.13E-05	16	7.13%	12	5.64E-05	24	1.86%	3	1.47E-05
								Total		173	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_RS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	2	9.10E-06	9	7.11%	12	5.62E-05	17	7.39%	13	5.84E-05
2	0.42%	1	3.31E-06	10	4.39%	8	3.47E-05	18	8.17%	14	6.46E-05
3	0.41%	1	3.23E-06	11	4.67%	8	3.69E-05	19	5.70%	10	4.50E-05
4	0.27%	0	2.11E-06	12	5.89%	10	4.66E-05	20	4.27%	7	3.38E-05
5	0.50%	1	3.95E-06	13	6.15%	11	4.86E-05	21	3.26%	6	2.58E-05
6	0.91%	2	7.16E-06	14	6.03%	10	4.77E-05	22	3.30%	6	2.61E-05
7	3.79%	7	3.00E-05	15	7.01%	12	5.54E-05	23	2.46%	4	1.94E-05
8	7.76%	13	6.14E-05	16	7.13%	12	5.64E-05	24	1.86%	3	1.47E-05
								Total		173	

Project Traffic Emissions– Parkmoor Avenue

Avenues Silicon Valley School, San Jose, CA
Project Operation - Parkmoor Ave Emissions
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_DPM	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	43.7	3.4	variable	3,148
W_PA_DPM	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	43.7	3.4	variable	3,148
									Total	6,295

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.000683	########		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - E_PA_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	123	1.13E-05	9	6.44%	203	1.86E-05	17	5.52%	174	1.60E-05
2	2.59%	81	7.47E-06	10	7.25%	228	2.09E-05	18	3.34%	105	9.65E-06
3	2.82%	89	8.13E-06	11	6.33%	199	1.82E-05	19	2.42%	76	6.97E-06
4	3.39%	107	9.79E-06	12	6.90%	217	1.99E-05	20	0.92%	29	2.65E-06
5	2.19%	69	6.30E-06	13	6.27%	197	1.81E-05	21	2.99%	94	8.63E-06
6	3.39%	107	9.79E-06	14	6.15%	194	1.78E-05	22	4.14%	130	1.19E-05
7	6.10%	192	1.76E-05	15	5.12%	161	1.48E-05	23	2.47%	78	7.13E-06
8	4.66%	147	1.35E-05	16	3.85%	121	1.11E-05	24	0.86%	27	2.49E-06
								Total		3,148	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - W_PA_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	123	1.13E-05	9	6.44%	203	1.86E-05	17	5.52%	174	1.60E-05
2	2.59%	81	7.46E-06	10	7.25%	228	2.09E-05	18	3.34%	105	9.65E-06
3	2.82%	89	8.13E-06	11	6.33%	199	1.82E-05	19	2.42%	76	6.96E-06
4	3.39%	107	9.78E-06	12	6.90%	217	1.99E-05	20	0.92%	29	2.65E-06
5	2.19%	69	6.30E-06	13	6.27%	197	1.81E-05	21	2.99%	94	8.62E-06
6	3.39%	107	9.78E-06	14	6.15%	194	1.77E-05	22	4.14%	130	1.19E-05
7	6.10%	192	1.76E-05	15	5.12%	161	1.48E-05	23	2.47%	78	7.13E-06
8	4.66%	147	1.35E-05	16	3.85%	121	1.11E-05	24	0.86%	27	2.49E-06
								Total		3,148	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Parkmoor Ave Emissions
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_P25	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	3,148
E_PA_P25	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	3,148
									Total	6,295

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.00215	0.00341		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - E_PA_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	36	1.04E-05	9	7.11%	224	1.02E-04	17	7.39%	232	1.06E-04
2	0.42%	13	3.80E-06	10	4.39%	138	3.98E-05	18	8.17%	257	1.18E-04
3	0.41%	13	3.71E-06	11	4.67%	147	4.23E-05	19	5.70%	179	5.16E-05
4	0.27%	8	2.42E-06	12	5.89%	185	5.34E-05	20	4.27%	135	3.87E-05
5	0.50%	16	4.52E-06	13	6.15%	194	5.57E-05	21	3.26%	103	2.95E-05
6	0.91%	29	8.21E-06	14	6.03%	190	5.47E-05	22	3.30%	104	2.99E-05
7	3.79%	119	3.44E-05	15	7.01%	221	6.35E-05	23	2.46%	77	2.23E-05
8	7.76%	244	1.12E-04	16	7.13%	225	6.46E-05	24	1.86%	59	1.69E-05
								Total		3,148	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - E_PA_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	36	1.04E-05	9	7.11%	224	1.02E-04	17	7.39%	232	1.06E-04
2	0.42%	13	3.80E-06	10	4.39%	138	3.98E-05	18	8.17%	257	1.18E-04
3	0.41%	13	3.71E-06	11	4.67%	147	4.23E-05	19	5.70%	179	5.16E-05
4	0.27%	8	2.42E-06	12	5.89%	185	5.34E-05	20	4.27%	135	3.87E-05
5	0.50%	16	4.52E-06	13	6.15%	194	5.57E-05	21	3.26%	103	2.95E-05
6	0.91%	29	8.21E-06	14	6.03%	190	5.46E-05	22	3.30%	104	2.99E-05
7	3.79%	119	3.44E-05	15	7.01%	221	6.35E-05	23	2.46%	77	2.22E-05
8	7.76%	244	1.12E-04	16	7.13%	225	6.46E-05	24	1.86%	59	1.69E-05
								Total		3,148	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Parkmoor Ave Emissions
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_TEX	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	3,148
W_PA_TEX	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	3,148
									Total	6,295

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.04129	0.06856		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - E_PA_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	36	2.01E-04	9	7.11%	224	2.06E-03	17	7.39%	232	2.14E-03
2	0.42%	13	7.31E-05	10	4.39%	138	7.66E-04	18	8.17%	257	2.37E-03
3	0.41%	13	7.14E-05	11	4.67%	147	8.14E-04	19	5.70%	179	9.93E-04
4	0.27%	8	4.65E-05	12	5.89%	185	1.03E-03	20	4.27%	135	7.45E-04
5	0.50%	16	8.71E-05	13	6.15%	194	1.07E-03	21	3.26%	103	5.68E-04
6	0.91%	29	1.58E-04	14	6.03%	190	1.05E-03	22	3.30%	104	5.76E-04
7	3.79%	119	6.62E-04	15	7.01%	221	1.22E-03	23	2.46%	77	4.28E-04
8	7.76%	244	2.25E-03	16	7.13%	225	1.24E-03	24	1.86%	59	3.25E-04
								Total		3,148	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - W_PA_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	36	2.01E-04	9	7.11%	224	2.06E-03	17	7.39%	232	2.14E-03
2	0.42%	13	7.31E-05	10	4.39%	138	7.66E-04	18	8.17%	257	2.36E-03
3	0.41%	13	7.13E-05	11	4.67%	147	8.14E-04	19	5.70%	179	9.93E-04
4	0.27%	8	4.65E-05	12	5.89%	185	1.03E-03	20	4.27%	135	7.45E-04
5	0.50%	16	8.71E-05	13	6.15%	194	1.07E-03	21	3.26%	103	5.68E-04
6	0.91%	29	1.58E-04	14	6.03%	190	1.05E-03	22	3.30%	104	5.76E-04
7	3.79%	119	6.62E-04	15	7.01%	221	1.22E-03	23	2.46%	77	4.28E-04
8	7.76%	244	2.25E-03	16	7.13%	225	1.24E-03	24	1.86%	59	3.25E-04
								Total		3,148	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Parkmoor Ave Emissions
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_TEV	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	3,148
W_PA_TEV	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	3,148
									Total	6,295

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04728	0.07093		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - E_PA_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	36	2.30E-04	9	7.11%	224	2.13E-03	17	7.39%	232	2.21E-03
2	0.42%	13	8.37E-05	10	4.39%	138	8.77E-04	18	8.17%	257	2.45E-03
3	0.41%	13	8.17E-05	11	4.67%	147	9.32E-04	19	5.70%	179	1.14E-03
4	0.27%	8	5.33E-05	12	5.89%	185	1.18E-03	20	4.27%	135	8.53E-04
5	0.50%	16	9.97E-05	13	6.15%	194	1.23E-03	21	3.26%	103	6.51E-04
6	0.91%	29	1.81E-04	14	6.03%	190	1.21E-03	22	3.30%	104	6.59E-04
7	3.79%	119	7.58E-04	15	7.01%	221	1.40E-03	23	2.46%	77	4.91E-04
8	7.76%	244	2.33E-03	16	7.13%	225	1.43E-03	24	1.86%	59	3.72E-04
								Total		3,148	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - W_PA_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	36	2.30E-04	9	7.11%	224	2.13E-03	17	7.39%	232	2.21E-03
2	0.42%	13	8.37E-05	10	4.39%	138	8.77E-04	18	8.17%	257	2.45E-03
3	0.41%	13	8.17E-05	11	4.67%	147	9.32E-04	19	5.70%	179	1.14E-03
4	0.27%	8	5.32E-05	12	5.89%	185	1.18E-03	20	4.27%	135	8.53E-04
5	0.50%	16	9.97E-05	13	6.15%	194	1.23E-03	21	3.26%	103	6.51E-04
6	0.91%	29	1.81E-04	14	6.03%	190	1.20E-03	22	3.30%	104	6.59E-04
7	3.79%	119	7.57E-04	15	7.01%	221	1.40E-03	23	2.46%	77	4.90E-04
8	7.76%	244	2.32E-03	16	7.13%	225	1.42E-03	24	1.86%	59	3.72E-04
								Total		3,148	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Parkmoor Ave Emissions
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_FUG	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	3,148
W_PA_FUG	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	3,148
									Total	6,295

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - E_PA_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	36	1.64E-04	9	7.11%	224	1.02E-03	17	7.39%	232	1.05E-03
2	0.42%	13	5.98E-05	10	4.39%	138	6.27E-04	18	8.17%	257	1.17E-03
3	0.41%	13	5.84E-05	11	4.67%	147	6.66E-04	19	5.70%	179	8.13E-04
4	0.27%	8	3.81E-05	12	5.89%	185	8.41E-04	20	4.27%	135	6.10E-04
5	0.50%	16	7.13E-05	13	6.15%	194	8.78E-04	21	3.26%	103	4.65E-04
6	0.91%	29	1.29E-04	14	6.03%	190	8.61E-04	22	3.30%	104	4.71E-04
7	3.79%	119	5.42E-04	15	7.01%	221	1.00E-03	23	2.46%	77	3.51E-04
8	7.76%	244	1.11E-03	16	7.13%	225	1.02E-03	24	1.86%	59	2.66E-04
								Total		3,148	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - W_PA_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	36	1.64E-04	9	7.11%	224	1.01E-03	17	7.39%	232	1.05E-03
2	0.42%	13	5.98E-05	10	4.39%	138	6.27E-04	18	8.17%	257	1.17E-03
3	0.41%	13	5.84E-05	11	4.67%	147	6.66E-04	19	5.70%	179	8.13E-04
4	0.27%	8	3.81E-05	12	5.89%	185	8.41E-04	20	4.27%	135	6.10E-04
5	0.50%	16	7.12E-05	13	6.15%	194	8.77E-04	21	3.26%	103	4.65E-04
6	0.91%	29	1.29E-04	14	6.03%	190	8.61E-04	22	3.30%	104	4.71E-04
7	3.79%	119	5.41E-04	15	7.01%	221	1.00E-03	23	2.46%	77	3.50E-04
8	7.76%	244	1.11E-03	16	7.13%	225	1.02E-03	24	1.86%	59	2.66E-04
								Total		3,148	

Project Traffic Emissions– Lincoln Avenue

Avenues Silicon Valley School, San Jose, CA
Project Operation - Lincoln Ave Emissions
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Meridian Avenue

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
N_LA_DPM	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.7	3.4	variable	268
S_LA_DPM	Southbound Lincoln Ave	S	2	367.0	0.23	13.32	43.7	3.4	variable	268
									Total	535

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.000662	0.000743		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_LA_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	10	4.38E-07	9	6.44%	17	8.10E-07	17	5.52%	15	6.95E-07
2	2.59%	7	2.90E-07	10	7.25%	19	8.12E-07	18	3.34%	9	4.20E-07
3	2.82%	8	3.16E-07	11	6.33%	17	7.09E-07	19	2.42%	6	2.71E-07
4	3.39%	9	3.80E-07	12	6.90%	18	7.74E-07	20	0.92%	2	1.03E-07
5	2.19%	6	2.45E-07	13	6.27%	17	7.03E-07	21	2.99%	8	3.35E-07
6	3.39%	9	3.80E-07	14	6.15%	16	6.90E-07	22	4.14%	11	4.64E-07
7	6.10%	16	6.83E-07	15	5.12%	14	5.74E-07	23	2.47%	7	2.77E-07
8	4.66%	12	5.86E-07	16	3.85%	10	4.32E-07	24	0.86%	2	9.67E-08
								Total		268	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_LA_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	10	4.39E-07	9	6.44%	17	8.11E-07	17	5.52%	15	6.95E-07
2	2.59%	7	2.90E-07	10	7.25%	19	8.13E-07	18	3.34%	9	4.20E-07
3	2.82%	8	3.16E-07	11	6.33%	17	7.10E-07	19	2.42%	6	2.71E-07
4	3.39%	9	3.81E-07	12	6.90%	18	7.74E-07	20	0.92%	2	1.03E-07
5	2.19%	6	2.45E-07	13	6.27%	17	7.03E-07	21	2.99%	8	3.35E-07
6	3.39%	9	3.81E-07	14	6.15%	16	6.90E-07	22	4.14%	11	4.64E-07
7	6.10%	16	6.84E-07	15	5.12%	14	5.74E-07	23	2.47%	7	2.77E-07
8	4.66%	12	5.86E-07	16	3.85%	10	4.32E-07	24	0.86%	2	9.68E-08
								Total		268	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Lincoln Ave Emissions
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_LA_P25	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.7	1.3	variable	268
S_LA_P25	Southbound Lincoln Ave	S	2	367.0	0.23	13.32	43.7	1.3	variable	268
									Total	535

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.00186	0.00262		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_LA_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	3	3.63E-07	9	7.11%	19	3.16E-06	17	7.39%	20	3.28E-06
2	0.42%	1	1.32E-07	10	4.39%	12	1.38E-06	18	8.17%	22	3.63E-06
3	0.41%	1	1.29E-07	11	4.67%	12	1.47E-06	19	5.70%	15	1.79E-06
4	0.27%	1	8.41E-08	12	5.89%	16	1.86E-06	20	4.27%	11	1.35E-06
5	0.50%	1	1.57E-07	13	6.15%	16	1.94E-06	21	3.26%	9	1.03E-06
6	0.91%	2	2.86E-07	14	6.03%	16	1.90E-06	22	3.30%	9	1.04E-06
7	3.79%	10	1.20E-06	15	7.01%	19	2.21E-06	23	2.46%	7	7.74E-07
8	7.76%	21	3.45E-06	16	7.13%	19	2.25E-06	24	1.86%	5	5.87E-07
								Total		268	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_LA_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	3	3.63E-07	9	7.11%	19	3.16E-06	17	7.39%	20	3.28E-06
2	0.42%	1	1.32E-07	10	4.39%	12	1.38E-06	18	8.17%	22	3.63E-06
3	0.41%	1	1.29E-07	11	4.67%	12	1.47E-06	19	5.70%	15	1.80E-06
4	0.27%	1	8.41E-08	12	5.89%	16	1.86E-06	20	4.27%	11	1.35E-06
5	0.50%	1	1.57E-07	13	6.15%	16	1.94E-06	21	3.26%	9	1.03E-06
6	0.91%	2	2.86E-07	14	6.03%	16	1.90E-06	22	3.30%	9	1.04E-06
7	3.79%	10	1.20E-06	15	7.01%	19	2.21E-06	23	2.46%	7	7.75E-07
8	7.76%	21	3.45E-06	16	7.13%	19	2.25E-06	24	1.86%	5	5.87E-07
								Total		268	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Lincoln Ave Emissions
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Meridian Avenue

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
N_LA_TEX	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	268
S_LA_TEX	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	268
									Total	535

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.03451	0.05182		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_LA_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	3	6.73E-06	9	7.11%	19	6.24E-05	17	7.39%	20	6.48E-05
2	0.42%	1	2.45E-06	10	4.39%	12	2.57E-05	18	8.17%	22	7.17E-05
3	0.41%	1	2.39E-06	11	4.67%	12	2.73E-05	19	5.70%	15	3.33E-05
4	0.27%	1	1.56E-06	12	5.89%	16	3.44E-05	20	4.27%	11	2.50E-05
5	0.50%	1	2.92E-06	13	6.15%	16	3.59E-05	21	3.26%	9	1.90E-05
6	0.91%	2	5.30E-06	14	6.03%	16	3.53E-05	22	3.30%	9	1.93E-05
7	3.79%	10	2.22E-05	15	7.01%	19	4.10E-05	23	2.46%	7	1.44E-05
8	7.76%	21	6.81E-05	16	7.13%	19	4.17E-05	24	1.86%	5	1.09E-05
								Total		268	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_LA_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	3	6.73E-06	9	7.11%	19	6.25E-05	17	7.39%	20	6.49E-05
2	0.42%	1	2.45E-06	10	4.39%	12	2.57E-05	18	8.17%	22	7.17E-05
3	0.41%	1	2.39E-06	11	4.67%	12	2.73E-05	19	5.70%	15	3.33E-05
4	0.27%	1	1.56E-06	12	5.89%	16	3.45E-05	20	4.27%	11	2.50E-05
5	0.50%	1	2.92E-06	13	6.15%	16	3.60E-05	21	3.26%	9	1.91E-05
6	0.91%	2	5.30E-06	14	6.03%	16	3.53E-05	22	3.30%	9	1.93E-05
7	3.79%	10	2.22E-05	15	7.01%	19	4.10E-05	23	2.46%	7	1.44E-05
8	7.76%	21	6.82E-05	16	7.13%	19	4.17E-05	24	1.86%	5	1.09E-05
								Total		268	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Lincoln Ave Emissions
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Meridian Avenue

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
N_LA_TEV	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	268
S_LA_TEV	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	268
									Total	535

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04053	0.05674		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_LA_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	3	7.90E-06	9	7.11%	19	6.84E-05	17	7.39%	20	7.10E-05
2	0.42%	1	2.88E-06	10	4.39%	12	3.01E-05	18	8.17%	22	7.85E-05
3	0.41%	1	2.81E-06	11	4.67%	12	3.20E-05	19	5.70%	15	3.91E-05
4	0.27%	1	1.83E-06	12	5.89%	16	4.04E-05	20	4.27%	11	2.93E-05
5	0.50%	1	3.43E-06	13	6.15%	16	4.22E-05	21	3.26%	9	2.24E-05
6	0.91%	2	6.22E-06	14	6.03%	16	4.14E-05	22	3.30%	9	2.27E-05
7	3.79%	10	2.60E-05	15	7.01%	19	4.81E-05	23	2.46%	7	1.69E-05
8	7.76%	21	7.46E-05	16	7.13%	19	4.90E-05	24	1.86%	5	1.28E-05
								Total		268	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_LA_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	3	7.91E-06	9	7.11%	19	6.84E-05	17	7.39%	20	7.10E-05
2	0.42%	1	2.88E-06	10	4.39%	12	3.02E-05	18	8.17%	22	7.85E-05
3	0.41%	1	2.81E-06	11	4.67%	12	3.20E-05	19	5.70%	15	3.91E-05
4	0.27%	1	1.83E-06	12	5.89%	16	4.05E-05	20	4.27%	11	2.93E-05
5	0.50%	1	3.43E-06	13	6.15%	16	4.22E-05	21	3.26%	9	2.24E-05
6	0.91%	2	6.22E-06	14	6.03%	16	4.14E-05	22	3.30%	9	2.27E-05
7	3.79%	10	2.61E-05	15	7.01%	19	4.81E-05	23	2.46%	7	1.69E-05
8	7.76%	21	7.46E-05	16	7.13%	19	4.90E-05	24	1.86%	5	1.28E-05
								Total		268	

Avenues Silicon Valley School, San Jose, CA
Project Operation - Lincoln Ave Emissions
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_LA_FUG	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	268
S_LA_FUG	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	268
									Total	535

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_LA_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	3	6.59E-06	9	7.11%	19	4.07E-05	17	7.39%	20	4.23E-05
2	0.42%	1	2.40E-06	10	4.39%	12	2.51E-05	18	8.17%	22	4.68E-05
3	0.41%	1	2.34E-06	11	4.67%	12	2.67E-05	19	5.70%	15	3.26E-05
4	0.27%	1	1.53E-06	12	5.89%	16	3.37E-05	20	4.27%	11	2.45E-05
5	0.50%	1	2.86E-06	13	6.15%	16	3.52E-05	21	3.26%	9	1.86E-05
6	0.91%	2	5.19E-06	14	6.03%	16	3.45E-05	22	3.30%	9	1.89E-05
7	3.79%	10	2.17E-05	15	7.01%	19	4.01E-05	23	2.46%	7	1.41E-05
8	7.76%	21	4.44E-05	16	7.13%	19	4.08E-05	24	1.86%	5	1.07E-05
								Total		268	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_LA_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	3	6.59E-06	9	7.11%	19	4.07E-05	17	7.39%	20	4.23E-05
2	0.42%	1	2.40E-06	10	4.39%	12	2.51E-05	18	8.17%	22	4.68E-05
3	0.41%	1	2.34E-06	11	4.67%	12	2.67E-05	19	5.70%	15	3.26E-05
4	0.27%	1	1.53E-06	12	5.89%	16	3.37E-05	20	4.27%	11	2.45E-05
5	0.50%	1	2.86E-06	13	6.15%	16	3.52E-05	21	3.26%	9	1.87E-05
6	0.91%	2	5.19E-06	14	6.03%	16	3.45E-05	22	3.30%	9	1.89E-05
7	3.79%	10	2.17E-05	15	7.01%	19	4.01E-05	23	2.46%	7	1.41E-05
8	7.76%	21	4.44E-05	16	7.13%	19	4.09E-05	24	1.86%	5	1.07E-05
								Total		268	

Project Emergency Generators Information

Avenues Silicon Valley School, San Jose CA

Standby Emergency Generator Impacts - Caterpillar XQ105

School Sensitive Receptors (1 meter receptor heights)

DPM Emission Rates		
	DPM Emissions per Generator	
Source Type	Max Daily (lb/day)	Annual (lb/year)
126 hp Generator (Gen 1)	0.004	1.52
166 hp Generator (Gen 2)	0.005	2.00
CalEEMod DPM Emissions (2 Gens)	1.76E-03 tons/year	

Modeling Information	
Model	AERMOD
Source	Diesel Generator Engine 1 (Gen 1)
Source Type	Point
Meteorological Data	2006-2010 San Jose International Airport Meterological Data
Point Source Stack Parameters	
Generator Engine Size (hp)	126
Stack Height (ft)	8.00
Stack Diameter (ft)**	0.50
Exhaust Gas Flowrate (CFM)*	1075.60
Stack Exit Velocity (ft/sec)**	91.30
Exhaust Temperature (˚F)**	794.00
Emissions Rate (lb/hr)	0.000173

* calculated

**Generator manufacturer Information

Avenues Silicon Valley School, San Jose CA

Standby Emergency Generator Impacts - Olympian D80P4

School Sensitive Receptors (1 meter receptor heights)

DPM Emission Rates		
	DPM Emissions per Generator	
Source Type	Max Daily (lb/day)	Annual (lb/year)
126 hp Generator (Gen 1)	0.004	1.52
166 hp Generator (Gen 2)	0.005	2.00
CalEEMod DPM Emissions (2 Gens)	1.76E-03 tons/year	

Modeling Information	
Model	AERMOD
Source	Diesel Generator Engine 2 (Gen 2)
Source Type	Point
Meteorological Data	2006-2010 San Jose International Airport Meterological Data
Point Source Stack Parameters	
Generator Engine Size (hp)	166
Stack Height (ft)	8.00
Stack Diameter (ft)**	0.50
Exhaust Gas Flowrate (CFM)*	1010.81
Stack Exit Velocity (ft/sec)**	85.80
Exhaust Temperature (˚F)**	565.00
Emissions Rate (lb/hr)	0.000228

* calculated

**Generator manufacturer Information

Project Construction and Operation Cancer Risk Calculations

Avenues Silicon Valley School - Construction & Operation Sources - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Off-Site Residential Receptors (1.5 meter receptor heights)

Emissions Year	2020 - 2051
Receptor Information	
Number of Receptors	382
Receptor Height =	1st Floor - 1.5 meters above ground level
Receptor distances =	at sensitive residential receptor locations
Meteorological Conditions	
San Jose Airport Hourly Data	2006-2010
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2020 Construction	0.01798		
2021 Construction	0.01591		
2022 Construction	0.02007		
2023 Construction	0.17137		
2024 Construction	0.00789		
2025 Construction	0.01691		
2022-2051 Operation	0.00129	0.0519	0.0582

Emission Year	Maximum Total PM2.5 Concentration (µg/m3)
2020 Construction	0.1216
2021 Construction	0.0431
2022 Construction+Operation	0.1713
2023 Construction+Operation	**0.3199**
2024 Construction+Operation	0.1555
2025 Construction+Operation	0.1619
2022-2051 Operation	0.1550

Avenues Silicon Valley School, San Jose, CA -Maximum Project Cancer Risks
Off-Site Residential Receptors (1.5 meter receptor heights)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

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

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

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

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			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
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information							
					Annual TAC Conc (ug/m3)			Cancer Risk (per million)			
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2022	0.25	-0.25 - 0*	10	0.02136	0.0519	0.0582	0.29048	0.0040	0.0003	0.29
1	2022	1	1	10	0.02136	0.0519	0.0582	3.50831	0.0486	0.0032	3.56
2	2023	1	2	10	0.17266	0.0519	0.0582	28.35881	0.0486	0.0032	28.41
3	2024	1	3	3	0.00918	0.0519	0.0582	0.23737	0.0077	0.0005	0.246
4	2025	1	4	3	0.01820	0.0519	0.0582	0.47061	0.0077	0.0005	0.479
5	2026	1	5	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
6	2027	1	6	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
7	2028	1	7	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
8	2029	1	8	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
9	2030	1	9	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
10	2031	1	10	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
11	2032	1	11	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
12	2033	1	12	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
13	2034	1	13	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
14	2035	1	14	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
15	2036	1	15	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
16	2037	1	16	3	0.00129	0.0519	0.0582	0.03	0.0077	0.0005	0.042
17	2038	1	17	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
18	2039	1	18	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
19	2040	1	19	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
20	2041	1	20	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
21	2042	1	21	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
22	2043	1	22	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
23	2044	1	23	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
24	2045	1	24	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
25	2046	1	25	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
26	2047	1	26	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
27	2048	1	27	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
28	2049	1	28	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
29	2050	1	29	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
30	2051	1	29	1	0.00129	0.0519	0.0582	0.004	0.0009	0.0001	0.005
Total Increased Cancer Risk			**Total**					33.31771	0.2204	0.0146	**33.55**

* Third trimester of pregnancy

Local Area Roads and Interstate 280 – Background Traffic Emissions, Modeling and Health Risk Calculations for Impacts from Combined Sources at Offsite Residential MEI

Background Traffic Emissions– Meridian Avenue

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Background Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Meridian Avenue

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
N_MR_DPM	Northbound Meridian Road	N	2	776.0	0.48	13.32	43.7	3.4	variable	10,933
S_MR_DPM	Southbound Meridian Road	S	2	776.0	0.48	13.32	43.7	3.4	variable	10,933
									Total	21,865

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.000662	0.000743		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_MR_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	427	3.79E-05	9	6.44%	704	7.01E-05	17	5.52%	604	6.01E-05
2	2.59%	283	2.51E-05	10	7.25%	792	7.02E-05	18	3.34%	365	3.63E-05
3	2.82%	308	2.73E-05	11	6.33%	692	6.13E-05	19	2.42%	264	2.34E-05
4	3.39%	371	3.29E-05	12	6.90%	754	6.69E-05	20	0.92%	101	8.92E-06
5	2.19%	239	2.12E-05	13	6.27%	685	6.08E-05	21	2.99%	327	2.90E-05
6	3.39%	371	3.29E-05	14	6.15%	673	5.96E-05	22	4.14%	453	4.01E-05
7	6.10%	666	5.91E-05	15	5.12%	560	4.96E-05	23	2.47%	270	2.40E-05
8	4.66%	509	5.07E-05	16	3.85%	421	3.73E-05	24	0.86%	94	8.36E-06
								Total		10,933	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_MR_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	427	3.79E-05	9	6.44%	704	7.01E-05	17	5.52%	604	6.01E-05
2	2.59%	283	2.51E-05	10	7.25%	792	7.02E-05	18	3.34%	365	3.63E-05
3	2.82%	308	2.73E-05	11	6.33%	692	6.13E-05	19	2.42%	264	2.34E-05
4	3.39%	371	3.29E-05	12	6.90%	754	6.69E-05	20	0.92%	101	8.92E-06
5	2.19%	239	2.12E-05	13	6.27%	685	6.08E-05	21	2.99%	327	2.90E-05
6	3.39%	371	3.29E-05	14	6.15%	673	5.96E-05	22	4.14%	453	4.01E-05
7	6.10%	666	5.91E-05	15	5.12%	560	4.96E-05	23	2.47%	270	2.40E-05
8	4.66%	509	5.07E-05	16	3.85%	421	3.73E-05	24	0.86%	94	8.36E-06
								Total		10,933	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Background Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_MR_PM25	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	10,933
S_MR_PM25	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	10,933
									Total	21,865

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.00186	0.00262		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_MR_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	126	3.14E-05	9	7.11%	778	2.73E-04	17	7.39%	807	2.84E-04
2	0.42%	46	1.14E-05	10	4.39%	480	1.20E-04	18	8.17%	893	3.14E-04
3	0.41%	45	1.11E-05	11	4.67%	510	1.27E-04	19	5.70%	623	1.55E-04
4	0.27%	29	7.27E-06	12	5.89%	644	1.61E-04	20	4.27%	467	1.16E-04
5	0.50%	55	1.36E-05	13	6.15%	672	1.68E-04	21	3.26%	356	8.88E-05
6	0.91%	99	2.47E-05	14	6.03%	660	1.64E-04	22	3.30%	361	8.99E-05
7	3.79%	415	1.03E-04	15	7.01%	766	1.91E-04	23	2.46%	269	6.69E-05
8	7.76%	849	2.98E-04	16	7.13%	780	1.94E-04	24	1.86%	204	5.08E-05
								Total		10,933	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_MR_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	126	3.14E-05	9	7.11%	778	2.73E-04	17	7.39%	807	2.84E-04
2	0.42%	46	1.14E-05	10	4.39%	480	1.20E-04	18	8.17%	893	3.14E-04
3	0.41%	45	1.11E-05	11	4.67%	510	1.27E-04	19	5.70%	623	1.55E-04
4	0.27%	29	7.27E-06	12	5.89%	644	1.61E-04	20	4.27%	467	1.16E-04
5	0.50%	55	1.36E-05	13	6.15%	672	1.68E-04	21	3.26%	356	8.88E-05
6	0.91%	99	2.47E-05	14	6.03%	660	1.64E-04	22	3.30%	361	8.99E-05
7	3.79%	415	1.03E-04	15	7.01%	766	1.91E-04	23	2.46%	269	6.69E-05
8	7.76%	849	2.98E-04	16	7.13%	780	1.94E-04	24	1.86%	204	5.08E-05
								Total		10,933	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Background Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Meridian Avenue

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
N_MR_TEX	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	10,933
S_MR_TEX	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	10,933
									Total	21,865

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.03451	0.05182		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_MR_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	126	5.82E-04	9	7.11%	778	5.40E-03	17	7.39%	807	5.60E-03
2	0.42%	46	2.12E-04	10	4.39%	480	2.22E-03	18	8.17%	893	6.20E-03
3	0.41%	45	2.07E-04	11	4.67%	510	2.36E-03	19	5.70%	623	2.88E-03
4	0.27%	29	1.35E-04	12	5.89%	644	2.98E-03	20	4.27%	467	2.16E-03
5	0.50%	55	2.52E-04	13	6.15%	672	3.11E-03	21	3.26%	356	1.65E-03
6	0.91%	99	4.58E-04	14	6.03%	660	3.05E-03	22	3.30%	361	1.67E-03
7	3.79%	415	1.92E-03	15	7.01%	766	3.54E-03	23	2.46%	269	1.24E-03
8	7.76%	849	5.89E-03	16	7.13%	780	3.61E-03	24	1.86%	204	9.41E-04
								Total		10,933	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_MR_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	126	5.82E-04	9	7.11%	778	5.40E-03	17	7.39%	807	5.60E-03
2	0.42%	46	2.12E-04	10	4.39%	480	2.22E-03	18	8.17%	893	6.20E-03
3	0.41%	45	2.07E-04	11	4.67%	510	2.36E-03	19	5.70%	623	2.88E-03
4	0.27%	29	1.35E-04	12	5.89%	644	2.98E-03	20	4.27%	467	2.16E-03
5	0.50%	55	2.52E-04	13	6.15%	672	3.11E-03	21	3.26%	356	1.65E-03
6	0.91%	99	4.58E-04	14	6.03%	660	3.05E-03	22	3.30%	361	1.67E-03
7	3.79%	415	1.92E-03	15	7.01%	766	3.54E-03	23	2.46%	269	1.24E-03
8	7.76%	849	5.89E-03	16	7.13%	780	3.61E-03	24	1.86%	204	9.41E-04
								Total		10,933	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Background Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Meridian Avenue

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
N_MR_TEV	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	10,933
S_MR_TEV	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	10,933
									Total	21,865

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04053	0.05674		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_MR_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	126	6.83E-04	9	7.11%	778	5.91E-03	17	7.39%	807	6.14E-03
2	0.42%	46	2.49E-04	10	4.39%	480	2.61E-03	18	8.17%	893	6.79E-03
3	0.41%	45	2.43E-04	11	4.67%	510	2.77E-03	19	5.70%	623	3.38E-03
4	0.27%	29	1.58E-04	12	5.89%	644	3.50E-03	20	4.27%	467	2.54E-03
5	0.50%	55	2.96E-04	13	6.15%	672	3.65E-03	21	3.26%	356	1.93E-03
6	0.91%	99	5.38E-04	14	6.03%	660	3.58E-03	22	3.30%	361	1.96E-03
7	3.79%	415	2.25E-03	15	7.01%	766	4.16E-03	23	2.46%	269	1.46E-03
8	7.76%	849	6.45E-03	16	7.13%	780	4.23E-03	24	1.86%	204	1.11E-03
								Total		10,933	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_MR_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	126	6.83E-04	9	7.11%	778	5.91E-03	17	7.39%	807	6.14E-03
2	0.42%	46	2.49E-04	10	4.39%	480	2.61E-03	18	8.17%	893	6.79E-03
3	0.41%	45	2.43E-04	11	4.67%	510	2.77E-03	19	5.70%	623	3.38E-03
4	0.27%	29	1.58E-04	12	5.89%	644	3.50E-03	20	4.27%	467	2.54E-03
5	0.50%	55	2.96E-04	13	6.15%	672	3.65E-03	21	3.26%	356	1.93E-03
6	0.91%	99	5.38E-04	14	6.03%	660	3.58E-03	22	3.30%	361	1.96E-03
7	3.79%	415	2.25E-03	15	7.01%	766	4.16E-03	23	2.46%	269	1.46E-03
8	7.76%	849	6.45E-03	16	7.13%	780	4.23E-03	24	1.86%	204	1.11E-03
								Total		10,933	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Background Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_MR_FUG	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	10,933
S_MR_FUG	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	10,933
									Total	21,865

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_MR_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	126	5.70E-04	9	7.11%	778	3.52E-03	17	7.39%	807	3.65E-03
2	0.42%	46	2.07E-04	10	4.39%	480	2.17E-03	18	8.17%	893	4.04E-03
3	0.41%	45	2.02E-04	11	4.67%	510	2.31E-03	19	5.70%	623	2.82E-03
4	0.27%	29	1.32E-04	12	5.89%	644	2.92E-03	20	4.27%	467	2.11E-03
5	0.50%	55	2.47E-04	13	6.15%	672	3.04E-03	21	3.26%	356	1.61E-03
6	0.91%	99	4.48E-04	14	6.03%	660	2.99E-03	22	3.30%	361	1.63E-03
7	3.79%	415	1.88E-03	15	7.01%	766	3.47E-03	23	2.46%	269	1.22E-03
8	7.76%	849	3.84E-03	16	7.13%	780	3.53E-03	24	1.86%	204	9.22E-04
								Total		10,933	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_MR_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	126	5.70E-04	9	7.11%	778	3.52E-03	17	7.39%	807	3.65E-03
2	0.42%	46	2.07E-04	10	4.39%	480	2.17E-03	18	8.17%	893	4.04E-03
3	0.41%	45	2.02E-04	11	4.67%	510	2.31E-03	19	5.70%	623	2.82E-03
4	0.27%	29	1.32E-04	12	5.89%	644	2.92E-03	20	4.27%	467	2.11E-03
5	0.50%	55	2.47E-04	13	6.15%	672	3.04E-03	21	3.26%	356	1.61E-03
6	0.91%	99	4.48E-04	14	6.03%	660	2.99E-03	22	3.30%	361	1.63E-03
7	3.79%	415	1.88E-03	15	7.01%	766	3.47E-03	23	2.46%	269	1.22E-03
8	7.76%	849	3.84E-03	16	7.13%	780	3.53E-03	24	1.86%	204	9.22E-04
								Total		10,933	

Background Traffic Emissions– Race Street

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Race Street

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
N_RS_DPM	Northbound Race Street	N	2	785.3	0.49	13.32	44	3.4	variable	2,173
S_RS_DPM	Southbound Race Street	S	2	785.6	0.49	13.32	44	3.4	variable	2,173
									Total	4,345

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.000683	0.000685		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_RS_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	85	7.86E-06	9	6.44%	140	1.30E-05	17	5.52%	120	1.11E-05
2	2.59%	56	5.20E-06	10	7.25%	157	1.46E-05	18	3.34%	72	6.73E-06
3	2.82%	61	5.67E-06	11	6.33%	137	1.27E-05	19	2.42%	52	4.86E-06
4	3.39%	74	6.82E-06	12	6.90%	150	1.39E-05	20	0.92%	20	1.85E-06
5	2.19%	47	4.39E-06	13	6.27%	136	1.26E-05	21	2.99%	65	6.01E-06
6	3.39%	74	6.82E-06	14	6.15%	134	1.24E-05	22	4.14%	90	8.33E-06
7	6.10%	132	1.23E-05	15	5.12%	111	1.03E-05	23	2.47%	54	4.97E-06
8	4.66%	101	9.40E-06	16	3.85%	84	7.75E-06	24	0.86%	19	1.73E-06
								Total		2,173	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_RS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	85	7.87E-06	9	6.44%	140	1.30E-05	17	5.52%	120	1.11E-05
2	2.59%	56	5.21E-06	10	7.25%	157	1.46E-05	18	3.34%	72	6.73E-06
3	2.82%	61	5.67E-06	11	6.33%	137	1.27E-05	19	2.42%	52	4.86E-06
4	3.39%	74	6.83E-06	12	6.90%	150	1.39E-05	20	0.92%	20	1.85E-06
5	2.19%	47	4.40E-06	13	6.27%	136	1.26E-05	21	2.99%	65	6.02E-06
6	3.39%	74	6.83E-06	14	6.15%	134	1.24E-05	22	4.14%	90	8.33E-06
7	6.10%	132	1.23E-05	15	5.12%	111	1.03E-05	23	2.47%	54	4.98E-06
8	4.66%	101	9.40E-06	16	3.85%	84	7.75E-06	24	0.86%	19	1.74E-06
								Total		2,173	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Race Street

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
N_RS_P25	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,173
S_RS_P25	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,173
									Total	4,345

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.00215	0.00341		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_RS_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	25	7.27E-06	9	7.11%	155	7.14E-05	17	7.39%	160	7.41E-05
2	0.42%	9	2.65E-06	10	4.39%	95	2.77E-05	18	8.17%	177	8.20E-05
3	0.41%	9	2.58E-06	11	4.67%	101	2.95E-05	19	5.70%	124	3.60E-05
4	0.27%	6	1.68E-06	12	5.89%	128	3.72E-05	20	4.27%	93	2.70E-05
5	0.50%	11	3.15E-06	13	6.15%	134	3.88E-05	21	3.26%	71	2.06E-05
6	0.91%	20	5.73E-06	14	6.03%	131	3.81E-05	22	3.30%	72	2.08E-05
7	3.79%	82	2.40E-05	15	7.01%	152	4.43E-05	23	2.46%	53	1.55E-05
8	7.76%	169	7.79E-05	16	7.13%	155	4.51E-05	24	1.86%	40	1.18E-05
								Total		2,173	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_RS_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	25	7.27E-06	9	7.11%	155	7.14E-05	17	7.39%	160	7.41E-05
2	0.42%	9	2.65E-06	10	4.39%	95	2.78E-05	18	8.17%	177	8.20E-05
3	0.41%	9	2.58E-06	11	4.67%	101	2.95E-05	19	5.70%	124	3.60E-05
4	0.27%	6	1.69E-06	12	5.89%	128	3.72E-05	20	4.27%	93	2.70E-05
5	0.50%	11	3.16E-06	13	6.15%	134	3.89E-05	21	3.26%	71	2.06E-05
6	0.91%	20	5.73E-06	14	6.03%	131	3.81E-05	22	3.30%	72	2.09E-05
7	3.79%	82	2.40E-05	15	7.01%	152	4.43E-05	23	2.46%	53	1.55E-05
8	7.76%	169	7.79E-05	16	7.13%	155	4.51E-05	24	1.86%	40	1.18E-05
								Total		2,173	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Race Street

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
N_RS_TEX	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,173
S_RS_TEX	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,173
									Total	4,345

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.04129	0.06856		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_RS_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	25	1.40E-04	9	7.11%	155	1.44E-03	17	7.39%	160	1.49E-03
2	0.42%	9	5.10E-05	10	4.39%	95	5.34E-04	18	8.17%	177	1.65E-03
3	0.41%	9	4.97E-05	11	4.67%	101	5.67E-04	19	5.70%	124	6.93E-04
4	0.27%	6	3.24E-05	12	5.89%	128	7.16E-04	20	4.27%	93	5.20E-04
5	0.50%	11	6.07E-05	13	6.15%	134	7.48E-04	21	3.26%	71	3.96E-04
6	0.91%	20	1.10E-04	14	6.03%	131	7.34E-04	22	3.30%	72	4.01E-04
7	3.79%	82	4.61E-04	15	7.01%	152	8.52E-04	23	2.46%	53	2.99E-04
8	7.76%	169	1.57E-03	16	7.13%	155	8.68E-04	24	1.86%	40	2.27E-04
								Total		2,173	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_RS_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	25	1.40E-04	9	7.11%	155	1.44E-03	17	7.39%	160	1.49E-03
2	0.42%	9	5.10E-05	10	4.39%	95	5.34E-04	18	8.17%	177	1.65E-03
3	0.41%	9	4.98E-05	11	4.67%	101	5.68E-04	19	5.70%	124	6.93E-04
4	0.27%	6	3.24E-05	12	5.89%	128	7.17E-04	20	4.27%	93	5.20E-04
5	0.50%	11	6.07E-05	13	6.15%	134	7.48E-04	21	3.26%	71	3.96E-04
6	0.91%	20	1.10E-04	14	6.03%	131	7.34E-04	22	3.30%	72	4.02E-04
7	3.79%	82	4.62E-04	15	7.01%	152	8.53E-04	23	2.46%	53	2.99E-04
8	7.76%	169	1.57E-03	16	7.13%	155	8.68E-04	24	1.86%	40	2.27E-04
								Total		2,173	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Race Street

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
N_RS_TEV	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,173
S_RS_TEV	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,173
									Total	4,345

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04728	0.07093		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_RS_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	25	1.60E-04	9	7.11%	155	1.49E-03	17	7.39%	160	1.54E-03
2	0.42%	9	5.84E-05	10	4.39%	95	6.11E-04	18	8.17%	177	1.71E-03
3	0.41%	9	5.70E-05	11	4.67%	101	6.50E-04	19	5.70%	124	7.93E-04
4	0.27%	6	3.71E-05	12	5.89%	128	8.20E-04	20	4.27%	93	5.95E-04
5	0.50%	11	6.95E-05	13	6.15%	134	8.56E-04	21	3.26%	71	4.54E-04
6	0.91%	20	1.26E-04	14	6.03%	131	8.40E-04	22	3.30%	72	4.60E-04
7	3.79%	82	5.28E-04	15	7.01%	152	9.76E-04	23	2.46%	53	3.42E-04
8	7.76%	169	1.62E-03	16	7.13%	155	9.93E-04	24	1.86%	40	2.59E-04
								Total		2,173	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_RS_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	25	1.60E-04	9	7.11%	155	1.49E-03	17	7.39%	160	1.54E-03
2	0.42%	9	5.84E-05	10	4.39%	95	6.12E-04	18	8.17%	177	1.71E-03
3	0.41%	9	5.70E-05	11	4.67%	101	6.50E-04	19	5.70%	124	7.93E-04
4	0.27%	6	3.72E-05	12	5.89%	128	8.21E-04	20	4.27%	93	5.95E-04
5	0.50%	11	6.96E-05	13	6.15%	134	8.56E-04	21	3.26%	71	4.54E-04
6	0.91%	20	1.26E-04	14	6.03%	131	8.40E-04	22	3.30%	72	4.60E-04
7	3.79%	82	5.28E-04	15	7.01%	152	9.76E-04	23	2.46%	53	3.42E-04
8	7.76%	169	1.62E-03	16	7.13%	155	9.94E-04	24	1.86%	40	2.59E-04
								Total		2,173	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Race Street

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
N_RS_FUG	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,173
S_RS_FUG	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,173
									Total	4,345

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_RS_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	25	1.15E-04	9	7.11%	155	7.08E-04	17	7.39%	160	7.35E-04
2	0.42%	9	4.17E-05	10	4.39%	95	4.37E-04	18	8.17%	177	8.13E-04
3	0.41%	9	4.07E-05	11	4.67%	101	4.64E-04	19	5.70%	124	5.67E-04
4	0.27%	6	2.65E-05	12	5.89%	128	5.86E-04	20	4.27%	93	4.25E-04
5	0.50%	11	4.97E-05	13	6.15%	134	6.12E-04	21	3.26%	71	3.24E-04
6	0.91%	20	9.02E-05	14	6.03%	131	6.00E-04	22	3.30%	72	3.28E-04
7	3.79%	82	3.78E-04	15	7.01%	152	6.97E-04	23	2.46%	53	2.44E-04
8	7.76%	169	7.72E-04	16	7.13%	155	7.10E-04	24	1.86%	40	1.85E-04
								Total		2,173	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_RS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	25	1.15E-04	9	7.11%	155	7.08E-04	17	7.39%	160	7.35E-04
2	0.42%	9	4.17E-05	10	4.39%	95	4.37E-04	18	8.17%	177	8.13E-04
3	0.41%	9	4.07E-05	11	4.67%	101	4.64E-04	19	5.70%	124	5.67E-04
4	0.27%	6	2.65E-05	12	5.89%	128	5.86E-04	20	4.27%	93	4.25E-04
5	0.50%	11	4.97E-05	13	6.15%	134	6.12E-04	21	3.26%	71	3.24E-04
6	0.91%	20	9.02E-05	14	6.03%	131	6.01E-04	22	3.30%	72	3.29E-04
7	3.79%	82	3.78E-04	15	7.01%	152	6.98E-04	23	2.46%	53	2.45E-04
8	7.76%	169	7.73E-04	16	7.13%	155	7.10E-04	24	1.86%	40	1.85E-04
								Total		2,173	

Background Traffic Emissions– Parkmoor Avenue

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_DPM	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	43.7	3.4	variable	5,115
W_PA_DPM	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	43.7	3.4	variable	5,115
									Total	10,230

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.000683	0.000685		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - E_PA_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	200	1.83E-05	9	6.44%	329	3.03E-05	17	5.52%	282	2.60E-05
2	2.59%	132	1.21E-05	10	7.25%	371	3.40E-05	18	3.34%	171	1.57E-05
3	2.82%	144	1.32E-05	11	6.33%	324	2.97E-05	19	2.42%	124	1.13E-05
4	3.39%	174	1.59E-05	12	6.90%	353	3.24E-05	20	0.92%	47	4.31E-06
5	2.19%	112	1.02E-05	13	6.27%	321	2.94E-05	21	2.99%	153	1.40E-05
6	3.39%	174	1.59E-05	14	6.15%	315	2.88E-05	22	4.14%	212	1.94E-05
7	6.10%	312	2.86E-05	15	5.12%	262	2.40E-05	23	2.47%	126	1.16E-05
8	4.66%	238	2.19E-05	16	3.85%	197	1.81E-05	24	0.86%	44	4.04E-06
								Total		5,115	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - W_PA_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	200	1.83E-05	9	6.44%	329	3.03E-05	17	5.52%	282	2.59E-05
2	2.59%	132	1.21E-05	10	7.25%	371	3.40E-05	18	3.34%	171	1.57E-05
3	2.82%	144	1.32E-05	11	6.33%	324	2.96E-05	19	2.42%	124	1.13E-05
4	3.39%	174	1.59E-05	12	6.90%	353	3.23E-05	20	0.92%	47	4.31E-06
5	2.19%	112	1.02E-05	13	6.27%	321	2.94E-05	21	2.99%	153	1.40E-05
6	3.39%	174	1.59E-05	14	6.15%	315	2.88E-05	22	4.14%	212	1.94E-05
7	6.10%	312	2.86E-05	15	5.12%	262	2.40E-05	23	2.47%	126	1.16E-05
8	4.66%	238	2.19E-05	16	3.85%	197	1.81E-05	24	0.86%	44	4.04E-06
								Total		5,115	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_P25	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	5,115
E_PA_P25	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	5,115
									Total	10,230

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.00215	0.00341		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - E_PA_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	59	1.69E-05	9	7.11%	364	1.66E-04	17	7.39%	378	1.73E-04
2	0.42%	21	6.17E-06	10	4.39%	225	6.47E-05	18	8.17%	418	1.91E-04
3	0.41%	21	6.02E-06	11	4.67%	239	6.87E-05	19	5.70%	291	8.39E-05
4	0.27%	14	3.93E-06	12	5.89%	301	8.67E-05	20	4.27%	219	6.29E-05
5	0.50%	26	7.35E-06	13	6.15%	314	9.05E-05	21	3.26%	167	4.80E-05
6	0.91%	46	1.33E-05	14	6.03%	309	8.88E-05	22	3.30%	169	4.86E-05
7	3.79%	194	5.59E-05	15	7.01%	358	1.03E-04	23	2.46%	126	3.62E-05
8	7.76%	397	1.82E-04	16	7.13%	365	1.05E-04	24	1.86%	95	2.74E-05
								Total		5,115	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - E_PA_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	59	1.69E-05	9	7.11%	364	1.66E-04	17	7.39%	378	1.73E-04
2	0.42%	21	6.17E-06	10	4.39%	225	6.46E-05	18	8.17%	418	1.91E-04
3	0.41%	21	6.02E-06	11	4.67%	239	6.87E-05	19	5.70%	291	8.38E-05
4	0.27%	14	3.93E-06	12	5.89%	301	8.67E-05	20	4.27%	219	6.29E-05
5	0.50%	26	7.35E-06	13	6.15%	314	9.05E-05	21	3.26%	167	4.80E-05
6	0.91%	46	1.33E-05	14	6.03%	309	8.88E-05	22	3.30%	169	4.86E-05
7	3.79%	194	5.58E-05	15	7.01%	358	1.03E-04	23	2.46%	126	3.62E-05
8	7.76%	397	1.82E-04	16	7.13%	365	1.05E-04	24	1.86%	95	2.74E-05
								Total		5,115	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_TEX	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	5,115
W_PA_TEX	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	5,115
									Total	10,230

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.04129	0.06856		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - E_PA_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	59	3.26E-04	9	7.11%	364	3.35E-03	17	7.39%	378	3.48E-03
2	0.42%	21	1.19E-04	10	4.39%	225	1.24E-03	18	8.17%	418	3.84E-03
3	0.41%	21	1.16E-04	11	4.67%	239	1.32E-03	19	5.70%	291	1.61E-03
4	0.27%	14	7.56E-05	12	5.89%	301	1.67E-03	20	4.27%	219	1.21E-03
5	0.50%	26	1.42E-04	13	6.15%	314	1.74E-03	21	3.26%	167	9.24E-04
6	0.91%	46	2.57E-04	14	6.03%	309	1.71E-03	22	3.30%	169	9.36E-04
7	3.79%	194	1.08E-03	15	7.01%	358	1.99E-03	23	2.46%	126	6.96E-04
8	7.76%	397	3.65E-03	16	7.13%	365	2.02E-03	24	1.86%	95	5.28E-04
								Total		5,115	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - W_PA_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	59	3.26E-04	9	7.11%	364	3.35E-03	17	7.39%	378	3.47E-03
2	0.42%	21	1.19E-04	10	4.39%	225	1.24E-03	18	8.17%	418	3.84E-03
3	0.41%	21	1.16E-04	11	4.67%	239	1.32E-03	19	5.70%	291	1.61E-03
4	0.27%	14	7.56E-05	12	5.89%	301	1.67E-03	20	4.27%	219	1.21E-03
5	0.50%	26	1.41E-04	13	6.15%	314	1.74E-03	21	3.26%	167	9.23E-04
6	0.91%	46	2.57E-04	14	6.03%	309	1.71E-03	22	3.30%	169	9.35E-04
7	3.79%	194	1.08E-03	15	7.01%	358	1.99E-03	23	2.46%	126	6.96E-04
8	7.76%	397	3.65E-03	16	7.13%	365	2.02E-03	24	1.86%	95	5.28E-04
								Total		5,115	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_TEV	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	5,115
W_PA_TEV	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	5,115
									Total	10,230

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04728	0.07093		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - E_PA_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	59	3.74E-04	9	7.11%	364	3.46E-03	17	7.39%	378	3.60E-03
2	0.42%	21	1.36E-04	10	4.39%	225	1.43E-03	18	8.17%	418	3.98E-03
3	0.41%	21	1.33E-04	11	4.67%	239	1.51E-03	19	5.70%	291	1.85E-03
4	0.27%	14	8.66E-05	12	5.89%	301	1.91E-03	20	4.27%	219	1.39E-03
5	0.50%	26	1.62E-04	13	6.15%	314	2.00E-03	21	3.26%	167	1.06E-03
6	0.91%	46	2.94E-04	14	6.03%	309	1.96E-03	22	3.30%	169	1.07E-03
7	3.79%	194	1.23E-03	15	7.01%	358	2.27E-03	23	2.46%	126	7.97E-04
8	7.76%	397	3.78E-03	16	7.13%	365	2.32E-03	24	1.86%	95	6.05E-04
								Total		5,115	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - W_PA_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	59	3.73E-04	9	7.11%	364	3.46E-03	17	7.39%	378	3.59E-03
2	0.42%	21	1.36E-04	10	4.39%	225	1.42E-03	18	8.17%	418	3.98E-03
3	0.41%	21	1.33E-04	11	4.67%	239	1.51E-03	19	5.70%	291	1.85E-03
4	0.27%	14	8.65E-05	12	5.89%	301	1.91E-03	20	4.27%	219	1.39E-03
5	0.50%	26	1.62E-04	13	6.15%	314	1.99E-03	21	3.26%	167	1.06E-03
6	0.91%	46	2.94E-04	14	6.03%	309	1.96E-03	22	3.30%	169	1.07E-03
7	3.79%	194	1.23E-03	15	7.01%	358	2.27E-03	23	2.46%	126	7.97E-04
8	7.76%	397	3.78E-03	16	7.13%	365	2.31E-03	24	1.86%	95	6.04E-04
								Total		5,115	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_FUG	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	5,115
W_PA_FUG	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	5,115
									Total	10,230

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - E_PA_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	59	2.67E-04	9	7.11%	364	1.65E-03	17	7.39%	378	1.71E-03
2	0.42%	21	9.72E-05	10	4.39%	225	1.02E-03	18	8.17%	418	1.89E-03
3	0.41%	21	9.49E-05	11	4.67%	239	1.08E-03	19	5.70%	291	1.32E-03
4	0.27%	14	6.19E-05	12	5.89%	301	1.37E-03	20	4.27%	219	9.91E-04
5	0.50%	26	1.16E-04	13	6.15%	314	1.43E-03	21	3.26%	167	7.56E-04
6	0.91%	46	2.10E-04	14	6.03%	309	1.40E-03	22	3.30%	169	7.66E-04
7	3.79%	194	8.80E-04	15	7.01%	358	1.63E-03	23	2.46%	126	5.70E-04
8	7.76%	397	1.80E-03	16	7.13%	365	1.65E-03	24	1.86%	95	4.32E-04
								Total		5,115	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - W_PA_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	59	2.67E-04	9	7.11%	364	1.65E-03	17	7.39%	378	1.71E-03
2	0.42%	21	9.72E-05	10	4.39%	225	1.02E-03	18	8.17%	418	1.89E-03
3	0.41%	21	9.48E-05	11	4.67%	239	1.08E-03	19	5.70%	291	1.32E-03
4	0.27%	14	6.18E-05	12	5.89%	301	1.37E-03	20	4.27%	219	9.91E-04
5	0.50%	26	1.16E-04	13	6.15%	314	1.43E-03	21	3.26%	167	7.56E-04
6	0.91%	46	2.10E-04	14	6.03%	309	1.40E-03	22	3.30%	169	7.65E-04
7	3.79%	194	8.80E-04	15	7.01%	358	1.62E-03	23	2.46%	126	5.70E-04
8	7.76%	397	1.80E-03	16	7.13%	365	1.65E-03	24	1.86%	95	4.32E-04
								Total		5,115	

Background Traffic Emissions– Lincoln Avenue

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Lincoln Avenue

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
N_LA_DPM	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.7	3.4	variable	6,510
S_LA_DPM	Southbound Lincoln Ave	S	2	367.0	0.23	13.32	43.7	3.4	variable	6,510
									Total	13,020

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.000662	0.000743		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_LA_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	255	1.07E-05	9	6.44%	419	1.97E-05	17	5.52%	359	1.69E-05
2	2.59%	168	7.06E-06	10	7.25%	472	1.98E-05	18	3.34%	217	1.02E-05
3	2.82%	183	7.69E-06	11	6.33%	412	1.73E-05	19	2.42%	157	6.59E-06
4	3.39%	221	9.26E-06	12	6.90%	449	1.88E-05	20	0.92%	60	2.51E-06
5	2.19%	142	5.96E-06	13	6.27%	408	1.71E-05	21	2.99%	195	8.16E-06
6	3.39%	221	9.26E-06	14	6.15%	401	1.68E-05	22	4.14%	270	1.13E-05
7	6.10%	397	1.66E-05	15	5.12%	333	1.40E-05	23	2.47%	161	6.75E-06
8	4.66%	303	1.43E-05	16	3.85%	251	1.05E-05	24	0.86%	56	2.35E-06
								Total		6,510	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_LA_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	255	1.07E-05	9	6.44%	419	1.97E-05	17	5.52%	359	1.69E-05
2	2.59%	168	7.06E-06	10	7.25%	472	1.98E-05	18	3.34%	217	1.02E-05
3	2.82%	183	7.69E-06	11	6.33%	412	1.73E-05	19	2.42%	157	6.59E-06
4	3.39%	221	9.26E-06	12	6.90%	449	1.88E-05	20	0.92%	60	2.51E-06
5	2.19%	142	5.97E-06	13	6.27%	408	1.71E-05	21	2.99%	195	8.16E-06
6	3.39%	221	9.26E-06	14	6.15%	401	1.68E-05	22	4.14%	270	1.13E-05
7	6.10%	397	1.66E-05	15	5.12%	333	1.40E-05	23	2.47%	161	6.75E-06
8	4.66%	303	1.43E-05	16	3.85%	251	1.05E-05	24	0.86%	56	2.35E-06
								Total		6,510	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Lincoln Avenue

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
N_LA_P25	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.7	1.3	variable	6,510
S_LA_P25	Southbound Lincoln Ave	S	2	367.0	0.23	13.32	43.7	1.3	variable	6,510
									Total	13,020

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.00186	0.00262		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_LA_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	75	8.83E-06	9	7.11%	463	7.69E-05	17	7.39%	481	7.98E-05
2	0.42%	27	3.21E-06	10	4.39%	286	3.37E-05	18	8.17%	532	8.83E-05
3	0.41%	27	3.14E-06	11	4.67%	304	3.58E-05	19	5.70%	371	4.37E-05
4	0.27%	17	2.05E-06	12	5.89%	384	4.52E-05	20	4.27%	278	3.28E-05
5	0.50%	33	3.83E-06	13	6.15%	400	4.72E-05	21	3.26%	212	2.50E-05
6	0.91%	59	6.95E-06	14	6.03%	393	4.63E-05	22	3.30%	215	2.53E-05
7	3.79%	247	2.91E-05	15	7.01%	456	5.38E-05	23	2.46%	160	1.88E-05
8	7.76%	505	8.39E-05	16	7.13%	464	5.47E-05	24	1.86%	121	1.43E-05
								Total		6,510	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_LA_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	75	8.83E-06	9	7.11%	463	7.69E-05	17	7.39%	481	7.99E-05
2	0.42%	27	3.22E-06	10	4.39%	286	3.37E-05	18	8.17%	532	8.83E-05
3	0.41%	27	3.14E-06	11	4.67%	304	3.58E-05	19	5.70%	371	4.37E-05
4	0.27%	17	2.05E-06	12	5.89%	384	4.52E-05	20	4.27%	278	3.28E-05
5	0.50%	33	3.83E-06	13	6.15%	400	4.72E-05	21	3.26%	212	2.50E-05
6	0.91%	59	6.96E-06	14	6.03%	393	4.63E-05	22	3.30%	215	2.53E-05
7	3.79%	247	2.91E-05	15	7.01%	456	5.38E-05	23	2.46%	160	1.89E-05
8	7.76%	505	8.39E-05	16	7.13%	464	5.48E-05	24	1.86%	121	1.43E-05
								Total		6,510	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Lincoln Avenue

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
N_LA_TEX	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	6,510
S_LA_TEX	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	6,510
									Total	13,020

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.03451	0.05182		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_LA_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	75	1.64E-04	9	7.11%	463	1.52E-03	17	7.39%	481	1.58E-03
2	0.42%	27	5.96E-05	10	4.39%	286	6.25E-04	18	8.17%	532	1.74E-03
3	0.41%	27	5.82E-05	11	4.67%	304	6.64E-04	19	5.70%	371	8.10E-04
4	0.27%	17	3.79E-05	12	5.89%	384	8.38E-04	20	4.27%	278	6.08E-04
5	0.50%	33	7.10E-05	13	6.15%	400	8.75E-04	21	3.26%	212	4.64E-04
6	0.91%	59	1.29E-04	14	6.03%	393	8.58E-04	22	3.30%	215	4.70E-04
7	3.79%	247	5.40E-04	15	7.01%	456	9.97E-04	23	2.46%	160	3.49E-04
8	7.76%	505	1.66E-03	16	7.13%	464	1.01E-03	24	1.86%	121	2.65E-04
								Total		6,510	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_LA_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	75	1.64E-04	9	7.11%	463	1.52E-03	17	7.39%	481	1.58E-03
2	0.42%	27	5.97E-05	10	4.39%	286	6.25E-04	18	8.17%	532	1.75E-03
3	0.41%	27	5.82E-05	11	4.67%	304	6.64E-04	19	5.70%	371	8.11E-04
4	0.27%	17	3.80E-05	12	5.89%	384	8.39E-04	20	4.27%	278	6.08E-04
5	0.50%	33	7.11E-05	13	6.15%	400	8.75E-04	21	3.26%	212	4.64E-04
6	0.91%	59	1.29E-04	14	6.03%	393	8.59E-04	22	3.30%	215	4.70E-04
7	3.79%	247	5.40E-04	15	7.01%	456	9.97E-04	23	2.46%	160	3.50E-04
8	7.76%	505	1.66E-03	16	7.13%	464	1.02E-03	24	1.86%	121	2.65E-04
								Total		6,510	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Lincoln Avenue

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
N_LA_TEV	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	6,510
S_LA_TEV	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	6,510
									Total	13,020

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04053	0.05674		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_LA_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	75	1.92E-04	9	7.11%	463	1.66E-03	17	7.39%	481	1.73E-03
2	0.42%	27	7.00E-05	10	4.39%	286	7.34E-04	18	8.17%	532	1.91E-03
3	0.41%	27	6.83E-05	11	4.67%	304	7.79E-04	19	5.70%	371	9.51E-04
4	0.27%	17	4.46E-05	12	5.89%	384	9.84E-04	20	4.27%	278	7.14E-04
5	0.50%	33	8.34E-05	13	6.15%	400	1.03E-03	21	3.26%	212	5.44E-04
6	0.91%	59	1.51E-04	14	6.03%	393	1.01E-03	22	3.30%	215	5.51E-04
7	3.79%	247	6.34E-04	15	7.01%	456	1.17E-03	23	2.46%	160	4.10E-04
8	7.76%	505	1.82E-03	16	7.13%	464	1.19E-03	24	1.86%	121	3.11E-04
								Total		6,510	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_LA_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	75	1.92E-04	9	7.11%	463	1.66E-03	17	7.39%	481	1.73E-03
2	0.42%	27	7.00E-05	10	4.39%	286	7.34E-04	18	8.17%	532	1.91E-03
3	0.41%	27	6.84E-05	11	4.67%	304	7.80E-04	19	5.70%	371	9.52E-04
4	0.27%	17	4.46E-05	12	5.89%	384	9.85E-04	20	4.27%	278	7.14E-04
5	0.50%	33	8.35E-05	13	6.15%	400	1.03E-03	21	3.26%	212	5.45E-04
6	0.91%	59	1.51E-04	14	6.03%	393	1.01E-03	22	3.30%	215	5.52E-04
7	3.79%	247	6.34E-04	15	7.01%	456	1.17E-03	23	2.46%	160	4.11E-04
8	7.76%	505	1.82E-03	16	7.13%	464	1.19E-03	24	1.86%	121	3.11E-04
								Total		6,510	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Lincoln Avenue

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
N_LA_FUG	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	6,510
S_LA_FUG	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	6,510
									Total	13,020

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_LA_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	75	1.60E-04	9	7.11%	463	9.91E-04	17	7.39%	481	1.03E-03
2	0.42%	27	5.84E-05	10	4.39%	286	6.12E-04	18	8.17%	532	1.14E-03
3	0.41%	27	5.70E-05	11	4.67%	304	6.50E-04	19	5.70%	371	7.93E-04
4	0.27%	17	3.71E-05	12	5.89%	384	8.21E-04	20	4.27%	278	5.95E-04
5	0.50%	33	6.95E-05	13	6.15%	400	8.56E-04	21	3.26%	212	4.54E-04
6	0.91%	59	1.26E-04	14	6.03%	393	8.40E-04	22	3.30%	215	4.60E-04
7	3.79%	247	5.28E-04	15	7.01%	456	9.76E-04	23	2.46%	160	3.42E-04
8	7.76%	505	1.08E-03	16	7.13%	464	9.94E-04	24	1.86%	121	2.59E-04
								Total		6,510	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_LA_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	75	1.60E-04	9	7.11%	463	9.91E-04	17	7.39%	481	1.03E-03
2	0.42%	27	5.84E-05	10	4.39%	286	6.12E-04	18	8.17%	532	1.14E-03
3	0.41%	27	5.70E-05	11	4.67%	304	6.50E-04	19	5.70%	371	7.94E-04
4	0.27%	17	3.72E-05	12	5.89%	384	8.21E-04	20	4.27%	278	5.95E-04
5	0.50%	33	6.96E-05	13	6.15%	400	8.57E-04	21	3.26%	212	4.54E-04
6	0.91%	59	1.26E-04	14	6.03%	393	8.41E-04	22	3.30%	215	4.60E-04
7	3.79%	247	5.29E-04	15	7.01%	456	9.77E-04	23	2.46%	160	3.42E-04
8	7.76%	505	1.08E-03	16	7.13%	464	9.94E-04	24	1.86%	121	2.60E-04
								Total		6,510	

Background Traffic Emissions & Modeling Information – Interstate 280

Avenues Silicon Valley Schools, San Jose, CA
I-280
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	Diesel ADT	Average Speed (mph)
NB I-280	Northbound I-280	N	4	995	68	20.6	3.4	1,715	variable
SB I-280	Southbound I-280	S	4	1014	68	20.6	3.4	1,715	variable

2022 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - NB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.30%	39	0.0092	9	6.79%	117	0.0180	17	6.56%	112	0.0106
2	1.41%	24	0.0098	10	5.43%	93	0.0087	18	6.36%	109	0.0101
3	1.52%	26	0.0101	11	5.29%	91	0.0086	19	4.50%	77	0.0082
4	1.44%	25	0.0092	12	6.24%	107	0.0085	20	2.99%	51	0.0080
5	1.19%	20	0.0093	13	6.15%	105	0.0084	21	3.20%	55	0.0085
6	1.78%	31	0.0088	14	6.02%	103	0.0084	22	3.63%	62	0.0085
7	4.57%	78	0.0085	15	6.23%	107	0.0083	23	2.52%	43	0.0086
8	6.56%	112	0.0171	16	5.84%	100	0.0082	24	1.49%	26	0.0082
								Total		1,715	

2022 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - SB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.30%	39	0.0092	9	6.79%	117	0.0109	17	6.56%	112	0.0173
2	1.41%	24	0.0098	10	5.43%	93	0.0087	18	6.36%	109	0.0179
3	1.52%	26	0.0101	11	5.29%	91	0.0086	19	4.50%	77	0.0082
4	1.44%	25	0.0092	12	6.24%	107	0.0085	20	2.99%	51	0.0080
5	1.19%	20	0.0093	13	6.15%	105	0.0084	21	3.20%	55	0.0085
6	1.78%	31	0.0088	14	6.02%	103	0.0084	22	3.63%	62	0.0085
7	4.57%	78	0.0085	15	6.23%	107	0.0083	23	2.52%	43	0.0086
8	6.56%	112	0.0103	16	5.84%	100	0.0082	24	1.49%	26	0.0082
								Total		1,715	

Avenues Silicon Valley Schools, San Jose, CA
I-280
PM2.5 & TOG Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
NB I-280	Northbound I-280	N	4	995	68	20.6	1.3	119,175	variable
SB I-280	Southbound I-280	S	4	1014	68	20.6	1.3	119,175	variable

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - NB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	1279	0.0199	9	7.07%	8423	0.0228	17	7.40%	8815	0.0199
2	0.35%	418	0.0202	10	4.24%	5049	0.0197	18	8.32%	9918	0.0198
3	0.28%	334	0.0205	11	4.58%	5463	0.0196	19	5.83%	6945	0.0194
4	0.17%	200	0.0232	12	5.83%	6951	0.0195	20	4.39%	5232	0.0193
5	0.44%	523	0.0201	13	6.17%	7359	0.0195	21	3.29%	3925	0.0194
6	0.80%	952	0.0203	14	6.03%	7188	0.0195	22	3.31%	3944	0.0195
7	3.76%	4478	0.0196	15	7.10%	8457	0.0194	23	2.48%	2952	0.0194
8	7.94%	9463	0.0226	16	7.25%	8641	0.0194	24	1.90%	2267	0.0193
								Total		119,175	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - SB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	1279	0.0199	9	7.07%	8423	0.0199	17	7.40%	8815	0.0227
2	0.35%	418	0.0202	10	4.24%	5049	0.0197	18	8.32%	9918	0.0226
3	0.28%	334	0.0205	11	4.58%	5463	0.0196	19	5.83%	6945	0.0194
4	0.17%	200	0.0232	12	5.83%	6951	0.0195	20	4.39%	5232	0.0193
5	0.44%	523	0.0201	13	6.17%	7359	0.0195	21	3.29%	3925	0.0194
6	0.80%	952	0.0203	14	6.03%	7188	0.0195	22	3.31%	3944	0.0195
7	3.76%	4478	0.0196	15	7.10%	8457	0.0194	23	2.48%	2952	0.0194
8	7.94%	9463	0.0198	16	7.25%	8641	0.0194	24	1.90%	2267	0.0193
								Total		119,175	

Avenues Silicon Valley Schools, San Jose, CA
I-280
Entrained PM2.5 Road Dust Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
NB I-280	Northbound I-280	N	4	995	68	20.6	1.3	119,175	variable
SB I-280	Southbound I-280	S	4	1014	68	20.6	1.3	119,175	variable

2022 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - NB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	1279	0.0077	9	7.07%	8423	0.0077	17	7.40%	8815	0.0077
2	0.35%	418	0.0077	10	4.24%	5049	0.0077	18	8.32%	9918	0.0077
3	0.28%	334	0.0077	11	4.58%	5463	0.0077	19	5.83%	6945	0.0077
4	0.17%	200	0.0077	12	5.83%	6951	0.0077	20	4.39%	5232	0.0077
5	0.44%	523	0.0077	13	6.17%	7359	0.0077	21	3.29%	3925	0.0077
6	0.80%	952	0.0077	14	6.03%	7188	0.0077	22	3.31%	3944	0.0077
7	3.76%	4478	0.0077	15	7.10%	8457	0.0077	23	2.48%	2952	0.0077
8	7.94%	9463	0.0077	16	7.25%	8641	0.0077	24	1.90%	2267	0.0077
								Total		119,175	

2022 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - SB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	1279	0.0077	9	7.07%	8423	0.0077	17	7.40%	8815	0.0077
2	0.35%	418	0.0077	10	4.24%	5049	0.0077	18	8.32%	9918	0.0077
3	0.28%	334	0.0077	11	4.58%	5463	0.0077	19	5.83%	6945	0.0077
4	0.17%	200	0.0077	12	5.83%	6951	0.0077	20	4.39%	5232	0.0077
5	0.44%	523	0.0077	13	6.17%	7359	0.0077	21	3.29%	3925	0.0077
6	0.80%	952	0.0077	14	6.03%	7188	0.0077	22	3.31%	3944	0.0077
7	3.76%	4478	0.0077	15	7.10%	8457	0.0077	23	2.48%	2952	0.0077
8	7.94%	9463	0.0077	16	7.25%	8641	0.0077	24	1.90%	2267	0.0077
								Total		119,175	

Avenues Silicon Valley Schools, San Jose, CA

I-280 Traffic Data and PM2.5 & TOG Emission Factors - 60 mph Trucks & 65 mph Other Vehicles

Analysis Year = ***2022***

Vehicle Type	2017 Caltrans Number Vehicles (veh/day)	2022 Number Vehicles (veh/day)	2022 Percent Diesel	Number Diesel Vehicles (veh/day)	Vehicle Speed (mph)	Emission Factors: Diesel Vehicles DPM (g/VMT)	All Vehicles: Total PM2.5 (g/VMT)	All Vehicles: Exhaust PM2.5 (g/VMT)	Gas Vehicles: Exhaust TOG (g/VMT)	Gas Vehicles: Running TOG (g/VMT)
LDA	162,234	170,346	1.14%	1,942	65	0.0076	0.0192	0.0015	0.0131	0.041
LDT	61,293	64,357	0.18%	119	65	0.0113	0.0192	0.0015	0.0200	0.086
MDT	2,292	2,406	10.36%	249	60	0.0111	0.0226	0.0019	0.0319	0.179
HDT	1,181	1,240	90.33%	1,120	60	0.0092	0.0579	0.0082	0.0687	0.093
Total	227,000	238,350	-	3,430	62.5	-	-		-	-
Mix Avg Emission Factor						**0.00848**	**0.01947**	**0.00153**	**0.01518**	**0.05466**
Increase From 2017		1.05								
Vehicles/Direction		119,175		1,715						
Avg Vehicles/Hour/Direction		**4,966**		**71**						

Traffic Data Year = ***2017***

2017 AADTs & 2016 Truck AADTs (%)	Total	Total Truck	Truck by Axle: 2	3	4	5
A Race St/Southwest Expressway	227,000	3,473	2,292	255	106	820
			65.99%	7.35%	3.05%	23.60%
Percent of Total Vehicles		1.53%	1.01%	0.11%	0.05%	0.36%

Traffic Increase per Year (%) = ***1.00%***

Avenues Silicon Valley Schools, San Jose, CA

I-280 Traffic Data and PM2.5 & TOG Emission Factors - 30 mph

Analysis Year = ***2022***

Vehicle Type	2017 Caltrans Number Vehicles (veh/day)	2022 Number Vehicles (veh/day)	2022 Percent Diesel	Number Diesel Vehicles (veh/day)	Vehicle Speed (mph)	Emission Factors: Diesel Vehicles DPM (g/VMT)	All Vehicles: Total PM2.5 (g/VMT)	All Vehicles: Exhaust PM2.5 (g/VMT)	Gas Vehicles: Exhaust TOG (g/VMT)	Gas Vehicles: Running TOG (g/VMT)
LDA	162,234	170,346	1.14%	1,942	30	0.0087	0.0197	0.0019	0.0169	0.041
LDT	61,292	64,357	0.18%	119	30	0.0127	0.0197	0.0019	0.0261	0.086
MDT	2,292	2,406	10.36%	249	30	0.0146	0.0233	0.0027	0.0467	0.179
HDT	1,181	1,240	90.33%	1,120	30	0.0142	0.0625	0.0128	0.1257	0.093
Total	227,000	238,350	-	3,430	30	-	-		-	-
Mix Avg Emission Factor						**0.01104**	**0.01991**	**0.00197**	**0.01976**	**0.05466**
Increase From 2017		1.05								
Vehicles/Direction		119,175		1,715						
Avg Vehicles/Hour/Direction		**4,966**		**71**						

Traffic Data Year = ***2017***

2017 AADTs & 2016 Truck AADTs (%)	Total	Total* Truck	Truck by Axle: 2	3	4	5
A Race St/Southwest Expressway	227,000	3,473	2,292	255	106	820
			65.99%	7.35%	3.05%	23.60%
Percent of Total Vehicles		1.53%	1.01%	0.11%	0.05%	0.36%

Traffic Increase per Year (%) = ***1.00%***

Avenues Silicon Valley Schools, San Jose, CA
I-280 Traffic Data and PM2.5 & TOG Emission Factors - 15 mph

Analysis Year = ***2022***

Vehicle Type	2017 Caltrans Number Vehicles (veh/day)	2022 Number Vehicles (veh/day)	2022 Percent Diesel	Number Diesel Vehicles (veh/day)	Vehicle Speed (mph)	Emission Factors: Diesel Vehicles DPM (g/VMT)	All Vehicles: Total PM2.5 (g/VMT)	All Vehicles: Exhaust PM2.5 (g/VMT)	Gas Vehicles: Exhaust TOG (g/VMT)	Gas Vehicles: Running TOG (g/VMT)
LDA	162,234	170,346	1.14%	1,942	15	0.0157	0.0224	0.0046	0.0412	0.041
LDT	61,293	64,357	0.18%	119	15	0.0232	0.0224	0.0047	0.0624	0.086
MDT	2,292	2,406	10.36%	249	15	0.0343	0.0375	0.0168	0.1347	0.179
HDT	1,181	1,240	90.33%	1,120	15	0.0183	0.0657	0.0160	0.2388	0.093
Total	227,000	238,350	-	3,430	15	-	-	-	-	-
Mix Avg Emission Factor						**0.01815**	**0.02276**	**0.00482**	**0.04798**	**0.05466**
Increase From 2017		1.05								
Vehicles/Direction		119,175		1,715						
Avg Vehicles/Hour/Direction		**4,966**		**71**						

Traffic Data Year = ***2017***

2017 AADTs & 2016 Truck AADTs (%)	Total	Total Truck	Truck by Axle: 2	3	4	5
A Race St/Southwest Expressway	227,000	3,473	2,292	255	106	820
			65.99%	7.35%	3.05%	23.60%
Percent of Total Vehicles		1.53%	1.01%	0.11%	0.05%	0.36%

Traffic Increase per Year (%) = ***1.00%***

Avenues Silicon Valley Schools, San Jose, CA
I-280 Traffic Data and Entrained PM2.5 Road Dust Emission Factors

$E_{2.5} = [k(sL)^{0.91} \times (W)^{1.02} \times (1-P/4N) \times 453.59$

where:

$E_{2.5}$ = $PM_{2.5}$ emission factor (g/VMT)

k = particle size multiplier (g/VMT) [$k_{PM2.5} = k_{PM10} \times (0.0686/0.4572) = 1.0 \times 0.15 = 0.15$ g/VMT][a]

sL = roadway specific silt loading (g/m^2)

W = average weight of vehicles on road (Bay Area default = 2.4 tons)[a]

P = number of days with at least 0.01 inch of precipitation in the annual averaging period

N = number of days in the annual averaging period (default = 365)

Notes: [a] CARB 2018, Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust (Revised and updated, March 2018)

Road Type	Silt Loading (g/m^2)	Average Weight (tons)	County	No. Days ppt > 0.01"	$PM_{2.5}$ Emission Factor (g/VMT)
Freeway	0.015	2.4	Santa Clara	64	0.00767

SFBAAB[a]

Road Type	Silt Loading (g/m^2)
Collector	0.032
Freeway	0.015
Local	0.32
Major	0.032

SFBAAB[a]

County	>0.01 inch precipitation
Alameda	61
Contra Costa	60
Marin	66
Napa	68
San Francisco	67
San Mateo	60
Santa Clara	64
Solano	54
Sonoma	69

Cumulative Source Modeling and Health Risk Calculations Information

Avenues Silicon Valley School - Background Sources - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Offsite Residential MEI Receptor (1.5 meter receptor heights)

Emissions Year	2020 - 2051
Receptor Information	
Number of Receptors	1 (Project MEI receptor)
Receptor Height =	1st Floor - 1.5 meters above ground level
Receptor distances =	
Meteorological Conditions	
San Jose Airport Hourly Data	2006-2010
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

Offsite Residential MEI Maximum Concentrations

Emission Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2020 Construction			
2021 Construction			
2022 Construction			
2023 Construction			
2024 Construction			
2025 Construction			
2022-2051Background	0.00455	0.3869	0.7201

Emission Year	Offsite Residential MEI Maximum Concentrations
	Maximum Total PM2.5 Concentration (µg/m3)
2020 Construction	0.0406
2021 Construction	0.0160
2022 Construction+Operation	0.3499
2023 Construction+Operation	0.6057
2024 Construction+Operation	0.3348
2025 Construction+Operation	0.3478
2022-2051 Cumulative	0.3268

Avenues Silicon Valley School, San Jose, CA -Maximum Background Cancer Risks
Offsite Residential MEI Receptor (1.5 meter receptor heights)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

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

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

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

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			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
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information							
					Annual TAC Conc (ug/m3)			Cancer Risk (per million)			
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2022	0.25	-0.25 - 0*	10	0.00455	0.3869	0.7201	0.062	0.0300	0.0033	0.10
1	2022	1	1	10	0.00455	0.3869	0.7201	0.75	0.3628	0.0398	1.15
2	2023	1	2	10	0.00455	0.3869	0.7201	0.75	0.3628	0.0398	1.15
3	2024	1	3	3	0.00455	0.3869	0.7201	0.12	0.0571	0.0063	0.181
4	2025	1	4	3	0.00455	0.3869	0.7201	0.12	0.0571	0.0063	0.181
5	2026	1	5	3	0.00455	0.3869	0.7201	0.12	0.0571	0.0063	0.181
6	2027	1	6	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
7	2028	1	7	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
8	2029	1	8	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
9	2030	1	9	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
10	2031	1	10	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
11	2032	1	11	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
12	2033	1	12	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
13	2034	1	13	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
14	2035	1	14	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
15	2036	1	15	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
16	2037	1	16	3	0.0046	0.3869	0.7201	0.12	0.0571	0.0063	0.181
17	2038	1	17	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
18	2039	1	18	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
19	2040	1	19	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
20	2041	1	20	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
21	2042	1	21	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
22	2043	1	22	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
23	2044	1	23	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
24	2045	1	24	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
25	2046	1	25	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
26	2047	1	26	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
27	2048	1	27	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
28	2049	1	28	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
29	2050	1	29	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
30	2051	1	29	1	0.0046	0.3869	0.7201	0.013	0.0063	0.0007	0.020
Total Increased Cancer Risk			**Total**					3.387	1.64416	0.180	**5.21**

* Third trimester of pregnancy

Local Area Roads – Cumulative (Project plus Background) Traffic Emissions, Modeling and Health Risk Calculations for Cumulative Impacts at School Student MEI Location

Cumulative Traffic Emissions– Meridian Avenue

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Cumulative Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Meridian Avenue

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
N_MR_DPM	Northbound Meridian Road	N	2	776.0	0.48	13.32	43.7	3.4	variable	13,800
S_MR_DPM	Southbound Meridian Road	S	2	776.0	0.48	13.32	43.7	3.4	variable	13,800
									Total	27,600

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.000662	0.000743		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_MR_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	540	4.78E-05	9	6.44%	889	8.84E-05	17	5.52%	762	7.58E-05
2	2.59%	357	3.17E-05	10	7.25%	1000	8.87E-05	18	3.34%	460	4.58E-05
3	2.82%	389	3.45E-05	11	6.33%	873	7.74E-05	19	2.42%	333	2.96E-05
4	3.39%	468	4.15E-05	12	6.90%	952	8.44E-05	20	0.92%	127	1.13E-05
5	2.19%	302	2.67E-05	13	6.27%	865	7.67E-05	21	2.99%	413	3.66E-05
6	3.39%	468	4.15E-05	14	6.15%	849	7.53E-05	22	4.14%	571	5.07E-05
7	6.10%	841	7.46E-05	15	5.12%	706	6.26E-05	23	2.47%	341	3.03E-05
8	4.66%	643	6.40E-05	16	3.85%	532	4.71E-05	24	0.86%	119	1.06E-05
								Total		13,800	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_MR_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	540	4.78E-05	9	6.44%	889	8.84E-05	17	5.52%	762	7.58E-05
2	2.59%	357	3.17E-05	10	7.25%	1000	8.87E-05	18	3.34%	460	4.58E-05
3	2.82%	389	3.45E-05	11	6.33%	873	7.74E-05	19	2.42%	333	2.96E-05
4	3.39%	468	4.15E-05	12	6.90%	952	8.44E-05	20	0.92%	127	1.13E-05
5	2.19%	302	2.67E-05	13	6.27%	865	7.67E-05	21	2.99%	413	3.66E-05
6	3.39%	468	4.15E-05	14	6.15%	849	7.53E-05	22	4.14%	571	5.07E-05
7	6.10%	841	7.46E-05	15	5.12%	706	6.26E-05	23	2.47%	341	3.03E-05
8	4.66%	643	6.40E-05	16	3.85%	532	4.71E-05	24	0.86%	119	1.06E-05
								Total		13,800	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Cumulative Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_MR_PM25	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	13,800
S_MR_PM25	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	13,800
									Total	27,600

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.00186	0.00262		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_MR_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	159	3.96E-05	9	7.11%	982	3.45E-04	17	7.39%	1019	3.58E-04
2	0.42%	58	1.44E-05	10	4.39%	606	1.51E-04	18	8.17%	1127	3.96E-04
3	0.41%	56	1.41E-05	11	4.67%	644	1.61E-04	19	5.70%	786	1.96E-04
4	0.27%	37	9.17E-06	12	5.89%	813	2.03E-04	20	4.27%	590	1.47E-04
5	0.50%	69	1.72E-05	13	6.15%	848	2.11E-04	21	3.26%	450	1.12E-04
6	0.91%	125	3.12E-05	14	6.03%	833	2.08E-04	22	3.30%	456	1.14E-04
7	3.79%	524	1.31E-04	15	7.01%	967	2.41E-04	23	2.46%	339	8.45E-05
8	7.76%	1071	3.76E-04	16	7.13%	985	2.45E-04	24	1.86%	257	6.41E-05
								Total		13,800	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_MR_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	159	3.96E-05	9	7.11%	982	3.45E-04	17	7.39%	1019	3.58E-04
2	0.42%	58	1.44E-05	10	4.39%	606	1.51E-04	18	8.17%	1127	3.96E-04
3	0.41%	56	1.41E-05	11	4.67%	644	1.61E-04	19	5.70%	786	1.96E-04
4	0.27%	37	9.17E-06	12	5.89%	813	2.03E-04	20	4.27%	590	1.47E-04
5	0.50%	69	1.72E-05	13	6.15%	848	2.11E-04	21	3.26%	450	1.12E-04
6	0.91%	125	3.12E-05	14	6.03%	833	2.08E-04	22	3.30%	456	1.14E-04
7	3.79%	524	1.31E-04	15	7.01%	967	2.41E-04	23	2.46%	339	8.45E-05
8	7.76%	1071	3.76E-04	16	7.13%	985	2.45E-04	24	1.86%	257	6.41E-05
								Total		13,800	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Cumulative Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Meridian Avenue

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
N_MR_TEX	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	13,800
S_MR_TEX	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	13,800
									Total	27,600

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.03451	0.05182		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_MR_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	159	7.34E-04	9	7.11%	982	6.81E-03	17	7.39%	1019	7.07E-03
2	0.42%	58	2.67E-04	10	4.39%	606	2.80E-03	18	8.17%	1127	7.83E-03
3	0.41%	56	2.61E-04	11	4.67%	644	2.98E-03	19	5.70%	786	3.63E-03
4	0.27%	37	1.70E-04	12	5.89%	813	3.76E-03	20	4.27%	590	2.73E-03
5	0.50%	69	3.19E-04	13	6.15%	848	3.92E-03	21	3.26%	450	2.08E-03
6	0.91%	125	5.78E-04	14	6.03%	833	3.85E-03	22	3.30%	456	2.11E-03
7	3.79%	524	2.42E-03	15	7.01%	967	4.47E-03	23	2.46%	339	1.57E-03
8	7.76%	1071	7.44E-03	16	7.13%	985	4.55E-03	24	1.86%	257	1.19E-03
								Total		13,800	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_MR_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	159	7.34E-04	9	7.11%	982	6.81E-03	17	7.39%	1019	7.07E-03
2	0.42%	58	2.67E-04	10	4.39%	606	2.80E-03	18	8.17%	1127	7.83E-03
3	0.41%	56	2.61E-04	11	4.67%	644	2.98E-03	19	5.70%	786	3.63E-03
4	0.27%	37	1.70E-04	12	5.89%	813	3.76E-03	20	4.27%	590	2.73E-03
5	0.50%	69	3.19E-04	13	6.15%	848	3.92E-03	21	3.26%	450	2.08E-03
6	0.91%	125	5.78E-04	14	6.03%	833	3.85E-03	22	3.30%	456	2.11E-03
7	3.79%	524	2.42E-03	15	7.01%	967	4.47E-03	23	2.46%	339	1.57E-03
8	7.76%	1071	7.44E-03	16	7.13%	985	4.55E-03	24	1.86%	257	1.19E-03
								Total		13,800	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Cumulative Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Meridian Avenue

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
N_MR_TEV	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	13,800
S_MR_TEV	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	13,800
									Total	27,600

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04053	0.05674		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_MR_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	159	8.62E-04	9	7.11%	982	7.46E-03	17	7.39%	1019	7.75E-03
2	0.42%	58	3.14E-04	10	4.39%	606	3.29E-03	18	8.17%	1127	8.57E-03
3	0.41%	56	3.06E-04	11	4.67%	644	3.50E-03	19	5.70%	786	4.27E-03
4	0.27%	37	2.00E-04	12	5.89%	813	4.41E-03	20	4.27%	590	3.20E-03
5	0.50%	69	3.74E-04	13	6.15%	848	4.61E-03	21	3.26%	450	2.44E-03
6	0.91%	125	6.79E-04	14	6.03%	833	4.52E-03	22	3.30%	456	2.47E-03
7	3.79%	524	2.84E-03	15	7.01%	967	5.25E-03	23	2.46%	339	1.84E-03
8	7.76%	1071	8.14E-03	16	7.13%	985	5.35E-03	24	1.86%	257	1.40E-03
								Total		13,800	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_MR_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	159	8.62E-04	9	7.11%	982	7.46E-03	17	7.39%	1019	7.75E-03
2	0.42%	58	3.14E-04	10	4.39%	606	3.29E-03	18	8.17%	1127	8.57E-03
3	0.41%	56	3.06E-04	11	4.67%	644	3.50E-03	19	5.70%	786	4.27E-03
4	0.27%	37	2.00E-04	12	5.89%	813	4.41E-03	20	4.27%	590	3.20E-03
5	0.50%	69	3.74E-04	13	6.15%	848	4.61E-03	21	3.26%	450	2.44E-03
6	0.91%	125	6.79E-04	14	6.03%	833	4.52E-03	22	3.30%	456	2.47E-03
7	3.79%	524	2.84E-03	15	7.01%	967	5.25E-03	23	2.46%	339	1.84E-03
8	7.76%	1071	8.14E-03	16	7.13%	985	5.35E-03	24	1.86%	257	1.40E-03
								Total		13,800	

Avenues Silicon Valley School, San Jose, CA
Meridain Ave Emissions - Cumulative Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Meridian Avenue

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
N_MR_FUG	Northbound Meridian Road	N	2	776	0.48	13.32	44	1.3	variable	13,800
S_MR_FUG	Southbound Meridian Road	S	2	776	0.48	13.32	44	1.3	variable	13,800
									Total	27,600

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_MR_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	159	7.19E-04	9	7.11%	982	4.44E-03	17	7.39%	1019	4.61E-03
2	0.42%	58	2.62E-04	10	4.39%	606	2.74E-03	18	8.17%	1127	5.10E-03
3	0.41%	56	2.56E-04	11	4.67%	644	2.91E-03	19	5.70%	786	3.56E-03
4	0.27%	37	1.67E-04	12	5.89%	813	3.68E-03	20	4.27%	590	2.67E-03
5	0.50%	69	3.12E-04	13	6.15%	848	3.84E-03	21	3.26%	450	2.04E-03
6	0.91%	125	5.66E-04	14	6.03%	833	3.77E-03	22	3.30%	456	2.06E-03
7	3.79%	524	2.37E-03	15	7.01%	967	4.38E-03	23	2.46%	339	1.53E-03
8	7.76%	1071	4.85E-03	16	7.13%	985	4.46E-03	24	1.86%	257	1.16E-03
								Total		13,800	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_MR_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	159	7.19E-04	9	7.11%	982	4.44E-03	17	7.39%	1019	4.61E-03
2	0.42%	58	2.62E-04	10	4.39%	606	2.74E-03	18	8.17%	1127	5.10E-03
3	0.41%	56	2.56E-04	11	4.67%	644	2.91E-03	19	5.70%	786	3.56E-03
4	0.27%	37	1.67E-04	12	5.89%	813	3.68E-03	20	4.27%	590	2.67E-03
5	0.50%	69	3.12E-04	13	6.15%	848	3.84E-03	21	3.26%	450	2.04E-03
6	0.91%	125	5.66E-04	14	6.03%	833	3.77E-03	22	3.30%	456	2.06E-03
7	3.79%	524	2.37E-03	15	7.01%	967	4.38E-03	23	2.46%	339	1.53E-03
8	7.76%	1071	4.85E-03	16	7.13%	985	4.46E-03	24	1.86%	257	1.16E-03
								Total		13,800	

Cumulative Traffic Emissions– Race Street

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background + Project Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Race Street

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
N_RS_DPM	Northbound Race Street	N	2	785.3	0.49	13.32	44	3.4	variable	2,345
S_RS_DPM	Southbound Race Street	S	2	785.6	0.49	13.32	44	3.4	variable	2,345
									Total	4,690

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.000683	#######		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_RS_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	92	8.49E-06	9	6.44%	151	1.40E-05	17	5.52%	129	1.20E-05
2	2.59%	61	5.62E-06	10	7.25%	170	1.57E-05	18	3.34%	78	7.26E-06
3	2.82%	66	6.12E-06	11	6.33%	148	1.37E-05	19	2.42%	57	5.24E-06
4	3.39%	80	7.37E-06	12	6.90%	162	1.50E-05	20	0.92%	22	2.00E-06
5	2.19%	51	4.74E-06	13	6.27%	147	1.36E-05	21	2.99%	70	6.49E-06
6	3.39%	80	7.37E-06	14	6.15%	144	1.34E-05	22	4.14%	97	8.99E-06
7	6.10%	143	1.32E-05	15	5.12%	120	1.11E-05	23	2.47%	58	5.37E-06
8	4.66%	109	1.01E-05	16	3.85%	90	8.36E-06	24	0.86%	20	1.87E-06
								Total		2,345	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_RS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	92	8.49E-06	9	6.44%	151	1.40E-05	17	5.52%	129	1.20E-05
2	2.59%	61	5.62E-06	10	7.25%	170	1.57E-05	18	3.34%	78	7.26E-06
3	2.82%	66	6.12E-06	11	6.33%	148	1.37E-05	19	2.42%	57	5.25E-06
4	3.39%	80	7.37E-06	12	6.90%	162	1.50E-05	20	0.92%	22	2.00E-06
5	2.19%	51	4.75E-06	13	6.27%	147	1.36E-05	21	2.99%	70	6.49E-06
6	3.39%	80	7.37E-06	14	6.15%	144	1.34E-05	22	4.14%	97	8.99E-06
7	6.10%	143	1.32E-05	15	5.12%	120	1.11E-05	23	2.47%	58	5.37E-06
8	4.66%	109	1.01E-05	16	3.85%	90	8.37E-06	24	0.86%	20	1.87E-06
								Total		2,345	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background + Project Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Race Street

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
N_RS_P25	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,345
S_RS_P25	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,345
									Total	4,690

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.00215	0.00341		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_RS_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	27	7.85E-06	9	7.11%	167	7.71E-05	17	7.39%	173	8.00E-05
2	0.42%	10	2.86E-06	10	4.39%	103	2.99E-05	18	8.17%	192	8.85E-05
3	0.41%	10	2.79E-06	11	4.67%	109	3.18E-05	19	5.70%	134	3.88E-05
4	0.27%	6	1.82E-06	12	5.89%	138	4.02E-05	20	4.27%	100	2.91E-05
5	0.50%	12	3.40E-06	13	6.15%	144	4.19E-05	21	3.26%	76	2.22E-05
6	0.91%	21	6.18E-06	14	6.03%	141	4.11E-05	22	3.30%	77	2.25E-05
7	3.79%	89	2.59E-05	15	7.01%	164	4.78E-05	23	2.46%	58	1.67E-05
8	7.76%	182	8.41E-05	16	7.13%	167	4.86E-05	24	1.86%	44	1.27E-05
								Total		2,345	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_RS_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	7.85E-06	9	7.11%	167	7.71E-05	17	7.39%	173	8.00E-05
2	0.42%	10	2.86E-06	10	4.39%	103	3.00E-05	18	8.17%	192	8.85E-05
3	0.41%	10	2.79E-06	11	4.67%	109	3.18E-05	19	5.70%	134	3.88E-05
4	0.27%	6	1.82E-06	12	5.89%	138	4.02E-05	20	4.27%	100	2.91E-05
5	0.50%	12	3.41E-06	13	6.15%	144	4.19E-05	21	3.26%	76	2.22E-05
6	0.91%	21	6.18E-06	14	6.03%	141	4.12E-05	22	3.30%	77	2.25E-05
7	3.79%	89	2.59E-05	15	7.01%	164	4.78E-05	23	2.46%	58	1.68E-05
8	7.76%	182	8.41E-05	16	7.13%	167	4.87E-05	24	1.86%	44	1.27E-05
								Total		2,345	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background + Project Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Race Street

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
N_RS_TEX	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,345
S_RS_TEX	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,345
									Total	4,690

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.04129	0.06856		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_RS_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	27	1.51E-04	9	7.11%	167	1.55E-03	17	7.39%	173	1.61E-03
2	0.42%	10	5.50E-05	10	4.39%	103	5.76E-04	18	8.17%	192	1.78E-03
3	0.41%	10	5.37E-05	11	4.67%	109	6.12E-04	19	5.70%	134	7.48E-04
4	0.27%	6	3.50E-05	12	5.89%	138	7.73E-04	20	4.27%	100	5.61E-04
5	0.50%	12	6.55E-05	13	6.15%	144	8.07E-04	21	3.26%	76	4.28E-04
6	0.91%	21	1.19E-04	14	6.03%	141	7.92E-04	22	3.30%	77	4.33E-04
7	3.79%	89	4.98E-04	15	7.01%	164	9.20E-04	23	2.46%	58	3.22E-04
8	7.76%	182	1.69E-03	16	7.13%	167	9.36E-04	24	1.86%	44	2.45E-04
								Total		2,345	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_RS_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	1.51E-04	9	7.11%	167	1.55E-03	17	7.39%	173	1.61E-03
2	0.42%	10	5.50E-05	10	4.39%	103	5.77E-04	18	8.17%	192	1.78E-03
3	0.41%	10	5.37E-05	11	4.67%	109	6.13E-04	19	5.70%	134	7.48E-04
4	0.27%	6	3.50E-05	12	5.89%	138	7.74E-04	20	4.27%	100	5.61E-04
5	0.50%	12	6.56E-05	13	6.15%	144	8.07E-04	21	3.26%	76	4.28E-04
6	0.91%	21	1.19E-04	14	6.03%	141	7.92E-04	22	3.30%	77	4.33E-04
7	3.79%	89	4.98E-04	15	7.01%	164	9.20E-04	23	2.46%	58	3.23E-04
8	7.76%	182	1.69E-03	16	7.13%	167	9.37E-04	24	1.86%	44	2.45E-04
								Total		2,345	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background + Project Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Race Street

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
N_RS_TEV	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,345
S_RS_TEV	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,345
									Total	4,690

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04728	0.07093		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_RS_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	27	1.73E-04	9	7.11%	167	1.60E-03	17	7.39%	173	1.67E-03
2	0.42%	10	6.30E-05	10	4.39%	103	6.60E-04	18	8.17%	192	1.84E-03
3	0.41%	10	6.15E-05	11	4.67%	109	7.01E-04	19	5.70%	134	8.56E-04
4	0.27%	6	4.01E-05	12	5.89%	138	8.85E-04	20	4.27%	100	6.42E-04
5	0.50%	12	7.50E-05	13	6.15%	144	9.24E-04	21	3.26%	76	4.90E-04
6	0.91%	21	1.36E-04	14	6.03%	141	9.07E-04	22	3.30%	77	4.96E-04
7	3.79%	89	5.70E-04	15	7.01%	164	1.05E-03	23	2.46%	58	3.69E-04
8	7.76%	182	1.75E-03	16	7.13%	167	1.07E-03	24	1.86%	44	2.80E-04
								Total		2,345	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_RS_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	1.73E-04	9	7.11%	167	1.60E-03	17	7.39%	173	1.67E-03
2	0.42%	10	6.30E-05	10	4.39%	103	6.60E-04	18	8.17%	192	1.84E-03
3	0.41%	10	6.15E-05	11	4.67%	109	7.02E-04	19	5.70%	134	8.56E-04
4	0.27%	6	4.01E-05	12	5.89%	138	8.86E-04	20	4.27%	100	6.43E-04
5	0.50%	12	7.51E-05	13	6.15%	144	9.24E-04	21	3.26%	76	4.90E-04
6	0.91%	21	1.36E-04	14	6.03%	141	9.07E-04	22	3.30%	77	4.96E-04
7	3.79%	89	5.70E-04	15	7.01%	164	1.05E-03	23	2.46%	58	3.69E-04
8	7.76%	182	1.75E-03	16	7.13%	167	1.07E-03	24	1.86%	44	2.80E-04
								Total		2,345	

Avenues Silicon Valley School, San Jose, CA
Race Street Emissions - Background + Project Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Race Street

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
N_RS_FUG	Northbound Race Street	N	2	785.3	0.49	13.32	44	1.3	variable	2,345
S_RS_FUG	Southbound Race Street	S	2	785.6	0.49	13.32	44	1.3	variable	2,345
									Total	4,690

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_RS_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	27	1.24E-04	9	7.11%	167	7.64E-04	17	7.39%	173	7.93E-04
2	0.42%	10	4.50E-05	10	4.39%	103	4.72E-04	18	8.17%	192	8.77E-04
3	0.41%	10	4.39E-05	11	4.67%	109	5.01E-04	19	5.70%	134	6.12E-04
4	0.27%	6	2.86E-05	12	5.89%	138	6.33E-04	20	4.27%	100	4.59E-04
5	0.50%	12	5.36E-05	13	6.15%	144	6.60E-04	21	3.26%	76	3.50E-04
6	0.91%	21	9.74E-05	14	6.03%	141	6.48E-04	22	3.30%	77	3.55E-04
7	3.79%	89	4.07E-04	15	7.01%	164	7.53E-04	23	2.46%	58	2.64E-04
8	7.76%	182	8.34E-04	16	7.13%	167	7.66E-04	24	1.86%	44	2.00E-04
								Total		2,345	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_RS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	1.24E-04	9	7.11%	167	7.64E-04	17	7.39%	173	7.94E-04
2	0.42%	10	4.50E-05	10	4.39%	103	4.72E-04	18	8.17%	192	8.78E-04
3	0.41%	10	4.40E-05	11	4.67%	109	5.01E-04	19	5.70%	134	6.12E-04
4	0.27%	6	2.87E-05	12	5.89%	138	6.33E-04	20	4.27%	100	4.59E-04
5	0.50%	12	5.36E-05	13	6.15%	144	6.61E-04	21	3.26%	76	3.50E-04
6	0.91%	21	9.74E-05	14	6.03%	141	6.48E-04	22	3.30%	77	3.55E-04
7	3.79%	89	4.08E-04	15	7.01%	164	7.53E-04	23	2.46%	58	2.64E-04
8	7.76%	182	8.34E-04	16	7.13%	167	7.67E-04	24	1.86%	44	2.00E-04
								Total		2,345	

Cumulative Traffic Emissions– Parkmoor Avenue

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background + Project Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_DPM	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	43.7	3.4	variable	8,263
W_PA_DPM	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	43.7	3.4	variable	8,263
									Total	16,525

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.000683	0.000685		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - E_PA_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	323	2.96E-05	9	6.44%	532	4.89E-05	17	5.52%	456	4.19E-05
2	2.59%	214	1.96E-05	10	7.25%	599	5.49E-05	18	3.34%	276	2.53E-05
3	2.82%	233	2.13E-05	11	6.33%	523	4.79E-05	19	2.42%	200	1.83E-05
4	3.39%	280	2.57E-05	12	6.90%	570	5.23E-05	20	0.92%	76	6.97E-06
5	2.19%	181	1.65E-05	13	6.27%	518	4.75E-05	21	2.99%	247	2.26E-05
6	3.39%	280	2.57E-05	14	6.15%	508	4.66E-05	22	4.14%	342	3.14E-05
7	6.10%	504	4.62E-05	15	5.12%	423	3.88E-05	23	2.47%	204	1.87E-05
8	4.66%	385	3.54E-05	16	3.85%	318	2.92E-05	24	0.86%	71	6.53E-06
								Total		8,263	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - W_PA_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	323	2.96E-05	9	6.44%	532	4.89E-05	17	5.52%	456	4.19E-05
2	2.59%	214	1.96E-05	10	7.25%	599	5.49E-05	18	3.34%	276	2.53E-05
3	2.82%	233	2.13E-05	11	6.33%	523	4.79E-05	19	2.42%	200	1.83E-05
4	3.39%	280	2.57E-05	12	6.90%	570	5.22E-05	20	0.92%	76	6.97E-06
5	2.19%	181	1.65E-05	13	6.27%	518	4.75E-05	21	2.99%	247	2.26E-05
6	3.39%	280	2.57E-05	14	6.15%	508	4.66E-05	22	4.14%	342	3.13E-05
7	6.10%	504	4.61E-05	15	5.12%	423	3.87E-05	23	2.47%	204	1.87E-05
8	4.66%	385	3.54E-05	16	3.85%	318	2.92E-05	24	0.86%	71	6.53E-06
								Total		8,263	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background + Project Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_P25	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	8,263
E_PA_P25	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	8,263
									Total	16,525

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.00215	0.00341		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - E_PA_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	95	2.74E-05	9	7.11%	588	2.69E-04	17	7.39%	610	2.79E-04
2	0.42%	35	9.97E-06	10	4.39%	363	1.04E-04	18	8.17%	675	3.09E-04
3	0.41%	34	9.73E-06	11	4.67%	386	1.11E-04	19	5.70%	471	1.35E-04
4	0.27%	22	6.34E-06	12	5.89%	487	1.40E-04	20	4.27%	353	1.02E-04
5	0.50%	41	1.19E-05	13	6.15%	508	1.46E-04	21	3.26%	269	7.75E-05
6	0.91%	75	2.16E-05	14	6.03%	499	1.44E-04	22	3.30%	273	7.85E-05
7	3.79%	313	9.02E-05	15	7.01%	579	1.67E-04	23	2.46%	203	5.84E-05
8	7.76%	641	2.93E-04	16	7.13%	590	1.70E-04	24	1.86%	154	4.43E-05
								Total		8,263	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - E_PA_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	95	2.74E-05	9	7.11%	588	2.69E-04	17	7.39%	610	2.79E-04
2	0.42%	35	9.96E-06	10	4.39%	363	1.04E-04	18	8.17%	675	3.09E-04
3	0.41%	34	9.73E-06	11	4.67%	386	1.11E-04	19	5.70%	471	1.35E-04
4	0.27%	22	6.34E-06	12	5.89%	487	1.40E-04	20	4.27%	353	1.02E-04
5	0.50%	41	1.19E-05	13	6.15%	508	1.46E-04	21	3.26%	269	7.75E-05
6	0.91%	75	2.15E-05	14	6.03%	499	1.43E-04	22	3.30%	273	7.85E-05
7	3.79%	313	9.02E-05	15	7.01%	579	1.67E-04	23	2.46%	203	5.84E-05
8	7.76%	641	2.93E-04	16	7.13%	590	1.70E-04	24	1.86%	154	4.43E-05
								Total		8,263	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background + Project Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_TEX	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	8,263
W_PA_TEX	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	8,263
									Total	16,525

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle (g/VMT)	0.04129	0.06856		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - E_PA_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	95	5.27E-04	9	7.11%	588	5.41E-03	17	7.39%	610	5.61E-03
2	0.42%	35	1.92E-04	10	4.39%	363	2.01E-03	18	8.17%	675	6.21E-03
3	0.41%	34	1.87E-04	11	4.67%	386	2.14E-03	19	5.70%	471	2.61E-03
4	0.27%	22	1.22E-04	12	5.89%	487	2.70E-03	20	4.27%	353	1.96E-03
5	0.50%	41	2.29E-04	13	6.15%	508	2.82E-03	21	3.26%	269	1.49E-03
6	0.91%	75	4.15E-04	14	6.03%	499	2.76E-03	22	3.30%	273	1.51E-03
7	3.79%	313	1.74E-03	15	7.01%	579	3.21E-03	23	2.46%	203	1.12E-03
8	7.76%	641	5.90E-03	16	7.13%	590	3.27E-03	24	1.86%	154	8.53E-04
								Total		8,263	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - W_PA_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	95	5.27E-04	9	7.11%	588	5.40E-03	17	7.39%	610	5.61E-03
2	0.42%	35	1.92E-04	10	4.39%	363	2.01E-03	18	8.17%	675	6.21E-03
3	0.41%	34	1.87E-04	11	4.67%	386	2.14E-03	19	5.70%	471	2.61E-03
4	0.27%	22	1.22E-04	12	5.89%	487	2.70E-03	20	4.27%	353	1.96E-03
5	0.50%	41	2.29E-04	13	6.15%	508	2.81E-03	21	3.26%	269	1.49E-03
6	0.91%	75	4.15E-04	14	6.03%	499	2.76E-03	22	3.30%	273	1.51E-03
7	3.79%	313	1.74E-03	15	7.01%	579	3.21E-03	23	2.46%	203	1.12E-03
8	7.76%	641	5.90E-03	16	7.13%	590	3.27E-03	24	1.86%	154	8.53E-04
								Total		8,263	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background + Project Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_TEV	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	8,263
W_PA_TEV	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	8,263
									Total	16,525

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04728	0.07093		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - E_PA_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	95	6.03E-04	9	7.11%	588	5.59E-03	17	7.39%	610	5.81E-03
2	0.42%	35	2.20E-04	10	4.39%	363	2.30E-03	18	8.17%	675	6.42E-03
3	0.41%	34	2.14E-04	11	4.67%	386	2.45E-03	19	5.70%	471	2.99E-03
4	0.27%	22	1.40E-04	12	5.89%	487	3.09E-03	20	4.27%	353	2.24E-03
5	0.50%	41	2.62E-04	13	6.15%	508	3.22E-03	21	3.26%	269	1.71E-03
6	0.91%	75	4.75E-04	14	6.03%	499	3.16E-03	22	3.30%	273	1.73E-03
7	3.79%	313	1.99E-03	15	7.01%	579	3.67E-03	23	2.46%	203	1.29E-03
8	7.76%	641	6.10E-03	16	7.13%	590	3.74E-03	24	1.86%	154	9.77E-04
								Total		8,263	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - W_PA_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	95	6.03E-04	9	7.11%	588	5.59E-03	17	7.39%	610	5.81E-03
2	0.42%	35	2.20E-04	10	4.39%	363	2.30E-03	18	8.17%	675	6.42E-03
3	0.41%	34	2.14E-04	11	4.67%	386	2.45E-03	19	5.70%	471	2.98E-03
4	0.27%	22	1.40E-04	12	5.89%	487	3.09E-03	20	4.27%	353	2.24E-03
5	0.50%	41	2.62E-04	13	6.15%	508	3.22E-03	21	3.26%	269	1.71E-03
6	0.91%	75	4.75E-04	14	6.03%	499	3.16E-03	22	3.30%	273	1.73E-03
7	3.79%	313	1.99E-03	15	7.01%	579	3.67E-03	23	2.46%	203	1.29E-03
8	7.76%	641	6.10E-03	16	7.13%	590	3.74E-03	24	1.86%	154	9.76E-04
								Total		8,263	

Avenues Silicon Valley School, San Jose, CA
Parkmoor Ave Emissions - Background + Project Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Parkmoor Avenue

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
E_PA_FUG	Eastbound Parkmoor Ave	E	2	777.5	0.48	13.32	44	1.3	variable	8,263
W_PA_FUG	Westbound Parkmoor Ave	W	2	777.2	0.48	13.32	44	1.3	variable	8,263
									Total	16,525

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	20		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - E_PA_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	95	4.31E-04	9	7.11%	588	2.66E-03	17	7.39%	610	2.77E-03
2	0.42%	35	1.57E-04	10	4.39%	363	1.65E-03	18	8.17%	675	3.06E-03
3	0.41%	34	1.53E-04	11	4.67%	386	1.75E-03	19	5.70%	471	2.13E-03
4	0.27%	22	9.99E-05	12	5.89%	487	2.21E-03	20	4.27%	353	1.60E-03
5	0.50%	41	1.87E-04	13	6.15%	508	2.30E-03	21	3.26%	269	1.22E-03
6	0.91%	75	3.40E-04	14	6.03%	499	2.26E-03	22	3.30%	273	1.24E-03
7	3.79%	313	1.42E-03	15	7.01%	579	2.63E-03	23	2.46%	203	9.20E-04
8	7.76%	641	2.91E-03	16	7.13%	590	2.67E-03	24	1.86%	154	6.98E-04
								Total		8,263	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - W_PA_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	95	4.31E-04	9	7.11%	588	2.66E-03	17	7.39%	610	2.77E-03
2	0.42%	35	1.57E-04	10	4.39%	363	1.64E-03	18	8.17%	675	3.06E-03
3	0.41%	34	1.53E-04	11	4.67%	386	1.75E-03	19	5.70%	471	2.13E-03
4	0.27%	22	9.99E-05	12	5.89%	487	2.21E-03	20	4.27%	353	1.60E-03
5	0.50%	41	1.87E-04	13	6.15%	508	2.30E-03	21	3.26%	269	1.22E-03
6	0.91%	75	3.39E-04	14	6.03%	499	2.26E-03	22	3.30%	273	1.24E-03
7	3.79%	313	1.42E-03	15	7.01%	579	2.62E-03	23	2.46%	203	9.20E-04
8	7.76%	641	2.91E-03	16	7.13%	590	2.67E-03	24	1.86%	154	6.98E-04
								Total		8,263	

Cumulative Traffic Emissions– Lincoln Avenue

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background + Project Traffic
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Lincoln Avenue

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
N_LA_DPM	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.7	3.4	variable	6,778
S_LA_DPM	Southbound Lincoln Ave	S	2	367.0	0.23	13.32	43.7	3.4	variable	6,778
									Total	13,555

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.000662	0.000743		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and DPM Emissions - N_LA_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	265	1.11E-05	9	6.44%	437	2.05E-05	17	5.52%	374	1.76E-05
2	2.59%	175	7.35E-06	10	7.25%	491	2.06E-05	18	3.34%	226	1.06E-05
3	2.82%	191	8.00E-06	11	6.33%	429	1.80E-05	19	2.42%	164	6.86E-06
4	3.39%	230	9.64E-06	12	6.90%	468	1.96E-05	20	0.92%	62	2.61E-06
5	2.19%	148	6.21E-06	13	6.27%	425	1.78E-05	21	2.99%	203	8.49E-06
6	3.39%	230	9.64E-06	14	6.15%	417	1.75E-05	22	4.14%	281	1.18E-05
7	6.10%	413	1.73E-05	15	5.12%	347	1.45E-05	23	2.47%	168	7.02E-06
8	4.66%	316	1.48E-05	16	3.85%	261	1.09E-05	24	0.86%	58	2.45E-06
								Total		6,778	

2022 Hourly Traffic Volumes Per Direction and DPM Emissions - S_LA_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	265	1.11E-05	9	6.44%	437	2.05E-05	17	5.52%	374	1.76E-05
2	2.59%	175	7.35E-06	10	7.25%	491	2.06E-05	18	3.34%	226	1.06E-05
3	2.82%	191	8.01E-06	11	6.33%	429	1.80E-05	19	2.42%	164	6.86E-06
4	3.39%	230	9.64E-06	12	6.90%	468	1.96E-05	20	0.92%	62	2.61E-06
5	2.19%	148	6.21E-06	13	6.27%	425	1.78E-05	21	2.99%	203	8.50E-06
6	3.39%	230	9.64E-06	14	6.15%	417	1.75E-05	22	4.14%	281	1.18E-05
7	6.10%	413	1.73E-05	15	5.12%	347	1.45E-05	23	2.47%	168	7.03E-06
8	4.66%	316	1.49E-05	16	3.85%	261	1.10E-05	24	0.86%	58	2.45E-06
								Total		6,778	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background + Project Traffic
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Lincoln Avenue

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
N_LA_P25	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.7	1.3	variable	6,778
S_LA_P25	Southbound Lincoln Ave	S	2	367.0	0.23	13.32	43.7	1.3	variable	6,778
									Total	13,555

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.00186	0.00262		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and PM2.5 Emissions - N_LA_P25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	78	9.19E-06	9	7.11%	482	8.00E-05	17	7.39%	501	8.31E-05
2	0.42%	28	3.35E-06	10	4.39%	298	3.51E-05	18	8.17%	554	9.19E-05
3	0.41%	28	3.27E-06	11	4.67%	316	3.73E-05	19	5.70%	386	4.55E-05
4	0.27%	18	2.13E-06	12	5.89%	399	4.70E-05	20	4.27%	290	3.41E-05
5	0.50%	34	3.99E-06	13	6.15%	417	4.91E-05	21	3.26%	221	2.60E-05
6	0.91%	61	7.24E-06	14	6.03%	409	4.82E-05	22	3.30%	224	2.64E-05
7	3.79%	257	3.03E-05	15	7.01%	475	5.60E-05	23	2.46%	166	1.96E-05
8	7.76%	526	8.73E-05	16	7.13%	484	5.70E-05	24	1.86%	126	1.49E-05
								Total		6,778	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - S_LA_P25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	78	9.20E-06	9	7.11%	482	8.01E-05	17	7.39%	501	8.31E-05
2	0.42%	28	3.35E-06	10	4.39%	298	3.51E-05	18	8.17%	554	9.20E-05
3	0.41%	28	3.27E-06	11	4.67%	316	3.73E-05	19	5.70%	386	4.55E-05
4	0.27%	18	2.13E-06	12	5.89%	399	4.71E-05	20	4.27%	290	3.41E-05
5	0.50%	34	3.99E-06	13	6.15%	417	4.91E-05	21	3.26%	221	2.60E-05
6	0.91%	61	7.24E-06	14	6.03%	409	4.82E-05	22	3.30%	224	2.64E-05
7	3.79%	257	3.03E-05	15	7.01%	475	5.60E-05	23	2.46%	166	1.96E-05
8	7.76%	526	8.74E-05	16	7.13%	484	5.70E-05	24	1.86%	126	1.49E-05
								Total		6,778	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background + Project Traffic
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2022

Lincoln Avenue

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
N_LA_TEX	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	6,778
S_LA_TEX	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	6,778
									Total	13,555

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle (g/VMT)	0.03451	0.05182		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Exhaust Emissions - N_LA_TEX

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	78	1.70E-04	9	7.11%	482	1.58E-03	17	7.39%	501	1.64E-03
2	0.42%	28	6.21E-05	10	4.39%	298	6.50E-04	18	8.17%	554	1.82E-03
3	0.41%	28	6.06E-05	11	4.67%	316	6.91E-04	19	5.70%	386	8.43E-04
4	0.27%	18	3.95E-05	12	5.89%	399	8.73E-04	20	4.27%	290	6.33E-04
5	0.50%	34	7.39E-05	13	6.15%	417	9.11E-04	21	3.26%	221	4.83E-04
6	0.91%	61	1.34E-04	14	6.03%	409	8.94E-04	22	3.30%	224	4.89E-04
7	3.79%	257	5.62E-04	15	7.01%	475	1.04E-03	23	2.46%	166	3.64E-04
8	7.76%	526	1.73E-03	16	7.13%	484	1.06E-03	24	1.86%	126	2.76E-04
								Total		6,778	

2022 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - S_LA_TEX

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	78	1.71E-04	9	7.11%	482	1.58E-03	17	7.39%	501	1.64E-03
2	0.42%	28	6.21E-05	10	4.39%	298	6.51E-04	18	8.17%	554	1.82E-03
3	0.41%	28	6.06E-05	11	4.67%	316	6.91E-04	19	5.70%	386	8.44E-04
4	0.27%	18	3.95E-05	12	5.89%	399	8.73E-04	20	4.27%	290	6.33E-04
5	0.50%	34	7.40E-05	13	6.15%	417	9.11E-04	21	3.26%	221	4.83E-04
6	0.91%	61	1.34E-04	14	6.03%	409	8.94E-04	22	3.30%	224	4.89E-04
7	3.79%	257	5.62E-04	15	7.01%	475	1.04E-03	23	2.46%	166	3.64E-04
8	7.76%	526	1.73E-03	16	7.13%	484	1.06E-03	24	1.86%	126	2.76E-04
								Total		6,778	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background + Project Traffic
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2022

Lincoln Avenue

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
N_LA_TEV	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	6,778
S_LA_TEV	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	6,778
									Total	13,555

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Emissions per Vehicle per Hour (g/hour)	1.41852	1.41852		
Emissions per Vehicle per Mile (g/VMT)	0.04053	0.05674		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and TOG Evaporative Emissions - N_LA_TEV

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	78	2.00E-04	9	7.11%	482	1.73E-03	17	7.39%	501	1.80E-03
2	0.42%	28	7.29E-05	10	4.39%	298	7.64E-04	18	8.17%	554	1.99E-03
3	0.41%	28	7.11E-05	11	4.67%	316	8.12E-04	19	5.70%	386	9.90E-04
4	0.27%	18	4.64E-05	12	5.89%	399	1.02E-03	20	4.27%	290	7.43E-04
5	0.50%	34	8.68E-05	13	6.15%	417	1.07E-03	21	3.26%	221	5.67E-04
6	0.91%	61	1.58E-04	14	6.03%	409	1.05E-03	22	3.30%	224	5.74E-04
7	3.79%	257	6.60E-04	15	7.01%	475	1.22E-03	23	2.46%	166	4.27E-04
8	7.76%	526	1.89E-03	16	7.13%	484	1.24E-03	24	1.86%	126	3.24E-04
								Total		6,778	

2022 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - S_LA_TEV

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	78	2.00E-04	9	7.11%	482	1.73E-03	17	7.39%	501	1.80E-03
2	0.42%	28	7.29E-05	10	4.39%	298	7.64E-04	18	8.17%	554	1.99E-03
3	0.41%	28	7.12E-05	11	4.67%	316	8.12E-04	19	5.70%	386	9.91E-04
4	0.27%	18	4.64E-05	12	5.89%	399	1.03E-03	20	4.27%	290	7.44E-04
5	0.50%	34	8.69E-05	13	6.15%	417	1.07E-03	21	3.26%	221	5.67E-04
6	0.91%	61	1.58E-04	14	6.03%	409	1.05E-03	22	3.30%	224	5.74E-04
7	3.79%	257	6.60E-04	15	7.01%	475	1.22E-03	23	2.46%	166	4.27E-04
8	7.76%	526	1.89E-03	16	7.13%	484	1.24E-03	24	1.86%	126	3.24E-04
								Total		6,778	

Avenues Silicon Valley School, San Jose, CA
Lincoln Avenue Emissions - Background + Project Traffic
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2022

Lincoln Avenue

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
N_LA_FUG	Northbound Lincoln Ave	N	2	366.8	0.23	13.32	43.69	1.3	variable	6,778
S_LA_FUG	Southbound Lincoln Ave	S	2	367	0.23	13.32	43.69	1.3	variable	6,778
									Total	13,555

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01487	0.01487		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03379	0.03379		

Emisson Factors from CT-EMFAC2017

2022 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - N_LA_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	78	1.67E-04	9	7.11%	482	1.03E-03	17	7.39%	501	1.07E-03
2	0.42%	28	6.08E-05	10	4.39%	298	6.37E-04	18	8.17%	554	1.18E-03
3	0.41%	28	5.93E-05	11	4.67%	316	6.77E-04	19	5.70%	386	8.26E-04
4	0.27%	18	3.87E-05	12	5.89%	399	8.54E-04	20	4.27%	290	6.20E-04
5	0.50%	34	7.24E-05	13	6.15%	417	8.91E-04	21	3.26%	221	4.72E-04
6	0.91%	61	1.31E-04	14	6.03%	409	8.75E-04	22	3.30%	224	4.79E-04
7	3.79%	257	5.50E-04	15	7.01%	475	1.02E-03	23	2.46%	166	3.56E-04
8	7.76%	526	1.13E-03	16	7.13%	484	1.03E-03	24	1.86%	126	2.70E-04
								Total		6,778	

2022 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - S_LA_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	78	1.67E-04	9	7.11%	482	1.03E-03	17	7.39%	501	1.07E-03
2	0.42%	28	6.08E-05	10	4.39%	298	6.37E-04	18	8.17%	554	1.19E-03
3	0.41%	28	5.93E-05	11	4.67%	316	6.77E-04	19	5.70%	386	8.26E-04
4	0.27%	18	3.87E-05	12	5.89%	399	8.55E-04	20	4.27%	290	6.20E-04
5	0.50%	34	7.24E-05	13	6.15%	417	8.92E-04	21	3.26%	221	4.73E-04
6	0.91%	61	1.31E-04	14	6.03%	409	8.75E-04	22	3.30%	224	4.79E-04
7	3.79%	257	5.50E-04	15	7.01%	475	1.02E-03	23	2.46%	166	3.56E-04
8	7.76%	526	1.13E-03	16	7.13%	484	1.04E-03	24	1.86%	126	2.70E-04
								Total		6,778	

Cumulative (Project plus Background) Impacts at School Student MEI Location

Avenues Silicon Valley School - Construction & Operation Sources - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site School Child Receptors - 1st Floor

Emissions Year	2020 - 2051
Receptor Information	
Receptor Type	On-site school child receptor locations
Number of Receptors	220
Receptor Height =	1st Floor Level - 1.0 meter height
Receptor distances =	7 meter spacing (23 feet) in school building areas
Meteorological Conditions	
San Jose Airport Hourly Data	2006-2010
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

Maximum Concentrations

Emission Years and Sources	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2022-2051 Interstate Traffic	0.00126	0.1381	0.4204
2022-2051 Local Roads Cumulative Traffic	0.00881	0.6505	0.7419
2022-2051 Emergency Generator Operation	0.00047		
Total Concentration	0.01054	0.7886	1.1623

Emission Years and Sources	Maximum Total PM2.5 Concentration (µg/m3)
2022-2051 Interstate 280 Traffic	0.21
2022-2051 Local Roads Cumulative Traffic	0.86
2022-2051 Emergency Generator Operation	0.00
Total Concentration	**1.07**
Adjusted for School Child Exposure*	**0.18**

* Concentration adjusted for 180 days/year exposure and for 8 hous/day.

Avenues Silicon Valley School, San Jose, CA -Maximum Cumulative Cancer Risks
On-Site School Child Receptors - 1st Floor
School Child Exposures

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

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

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

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

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Age -->	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter	3rd Trimester	Infant	School Child	Adult
ASF	10	10	3	1
8HBR* =	361	1200	520	240
A =	1	1	1	1
EF =	350	250	180	250
ED =	0.25	0	9	25
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	1.00

* 95th percentile breathing rates

School Child* MEI Cancer Risk From: On-Site School Child Receptors - 1st Floor

Exposure Duration (years)	Age	Maximum - Exposure Information: Age Sensitivity Factor	Max. Annual TAC Conc ($\mu g/m^3$): DPM	Exhaust TOG	Evaporative TOG	Cancer Risk (per million): DPM	Exhaust TOG	Evaporativ TOG	Total
0	0 - 2	10	0.01054	0.7886	1.1623	0.000	0.0000	0.0000	0.000
9	2 - 16	3	0.01054	0.7886	1.1623	1.147	0.4900	0.0426	1.679
0	16 - 30	1	0.00000	0.7886	1.1623	0.000	0.0000	0.0000	0.000
Total Increased Cancer Risk						**1.14679**	**0.48997**	**0.04259**	**1.68**

* School children from ages 2 to 16.

Attachment 4: Cumulative Community Risk Calculations

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	**8/12/2019**
Contact Name	Mimi McNamara
Affiliation	Illingworth & Rodkin
Phone	707-794-0400 x111
Email	mmcnamara@illingworthrodkin.com
Project Name	Avenues Silicon Valley School San Jose
Address	1404 Parkmoor Avenue, 529-691 Race Street, and 550-570 Meridian Avenue in San Jose
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Private School
Project Size (# of units or building square feet)	11.87-acre project site
Comments: Please provide daily emission files for stationary sources if available	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A. Incomplete 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 blue section only.

6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). For these sources are presented, these values have already been modeled and cannot be adjusted further. Table B

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Areana Flores at 415-749-4616, or aflores@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	FNAME	FSTREET	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	I&R Comments
Statioanry Sources											
140	112403	APRO, LLC dba United Pacific #AD2207	1501 Parkmoor Ave					Gasoline Station			Permitted max throughput for 2019: 3.47 million gallons/year
1,000	21844	Blossom Valley Collision	1176 Auzerais Ave					Auto Body Shop			Emissions file attached.
1,000	108316	Electrical Distributers	1135 Auzerais Ave					Gasoline Station			Permitted max throughput for 2019: 961,500 gallons/year
1140	3942	City Body Repair	1127 Auzeriais Ave					Auto Body Shop			Emissions file attached.
1430	7193	Michael & Co Inc	351 Lincoln Ave					Auto Body Shop			Emissions file attached.
1550	19791	Michael & Company, Inc	380 Lincoln Ave					Auto Body Shop			Emissions file attached.
1600	22167	A-ROD Auto Collision	345 Lincoln Ave					Auto Body Shop			Emissions file attached.
1840	100109	O C McDonald	1150 W San Carlos St					Gasoline Station			Permitted max throughput for 2019: 940,000 gallons/year
1830	19794	San Jose Water Company	420 Buena Vista Ave					Backup Diesel Generator			Emissions file attached.
1870	14652	Precision Auto Body & Glass	994 Lonus St					Auto Body Shop			Emissions file attached.
1970	100857	Graham Contractors, Inc	860 Lonus St					Gasoline Station			Permitted max throughput for 2019: 940,000 gallons/year
2160	10547	American Custom Marble, Inc	806 W Home Street					Cultured Marble Operation			Emissions file attached.
2230	104035	Meridian Chevron	900 Meridian Ave					Gasoline Station			Permitted max throughput for 2019: 2,600,000 gallons/year
2730	16210	San Jose Fire Dept Stn#4	710 Leigh Avenue					Backup Diesel Generator			Emissions file attached.
Roadways		ADT									
I-280	Race Street/Southwest Expressway	Post Mile: 3.764	Back AADT: 227,000	Ahead AADT: 179,000							Caltrans 2017 Traffic Volumes https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-280-405
Parkmoor Ave											Waiting on Traffic Analysis to provide ADT information
Meridian Ave											Waiting on Traffic Analysis to provide ADT information
Race St.											Waiting on Traffic Analysis to provide ADT information
Railroad		Number Trains/day	speed								
UPRR		2	5-10 mph								Based on US DOT Crossing Inventory - 2015 Does not include VTA

Footnotes:
1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or less. To be
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010. Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect the
    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

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	**8/12/2019**
Contact Name	Mimi McNamara
Affiliation	Illingworth & Rodkin
Phone	707-794-0400 x111
Email	mmcnamara@illingworthrodkin.com
Project Name	San Jose
Address	691 Race Street, and 550-570
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Private School
Project Size (# of units or building square feet)	11.87-acre project site

Comments: Please provide daily emission files for stationary sources if available

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A . Incomplete 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 District staff.

5. List the stationary source information in Table B ue section only.

6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Areana Flores at 415-749-4616, or aflores@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	Facility Name	Address	Plant No.	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	Distance from Project Site (meters)	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5	Distance from MEI (meters)	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
											Project Site					**Project Offsite MEI**		
	APRO, LLC dba United Pacific #AD2207	1501 Parkmoor Ave	112403					Gasoline Station		Permitted max throughput for 2019: 3.47 million gallons/year	45	3.20	0.02	-	300	0.60	<0.01	-
	Electrical Distributers	1135 Auzerais Ave	108316					Gasoline Station		Permitted max throughput for 2019: 961,500 gallons/year	300	0.20	<0.01	-				
	City Body Repair	1127 Auzeriais Ave	3942					Auto Body Shop		Emissions file attached.	300	-	<0.01	-				
	Blossom Valley Collision	1176 Auzerais Ave	21844					Auto Body Shop		Emissions file attached.	300	-	<0.01	-				

Footnotes:
1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic
    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,
    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