VALLCO SPECIAL AREA SPECIFIC PLAN AIR QUALITY AND GREENHOUSE GAS EMISSIONS ASSESSMENT CUPERTINO, CALIFORNIA

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INTRODUCTION

This report examines air quality and greenhouse gas (GHG) emissions in the Planning Area and region, includes a summary of applicable air quality and GHG regulations, and analyzes potential air quality and GHG impacts associated with the proposed Vallco Special Area Specific Plan. The Vallco Special Area Specific Plan area (project site) comprises approximately 70 acres, approximately 58 acres of which is developable. The developable area consists of multiple parcels and is located on both sides of North Wolfe Road between Vallco Parkway and Interstate 280 (I-280) on the east side and between Stevens Creek Boulevard and Vallco Parkway on the west side in the City of Cupertino. Most of the project site is developed with the Vallco Shopping Mall and associated parking facilities, and the remaining acres are developed roadways, a 148-room hotel (currently under construction), and a surface parking lot. In addition to the Proposed Project, the City is considering three alternatives: Occupied/Re-Tenanted Mall, Maximum Residential Alternative and a Retail and Residential Alternative.

The proposed Specific Plan would facilitate the development of 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units onsite. The Specific Plan could also include a 30-acre green roof and 65,000 square feet of civic spaces. The civic uses could include governmental uses and community meeting space. It is envisioned that 10,000 square feet of the 65,000 square feet of civic space would be for Science, Technology, Engineering, and Mathematics (STEM) lab use. The locations of the proposed land uses have not been finalized and therefore, it is assumed that the uses could be placed anywhere within the site. This report addresses the air quality and GHG impacts of the proposed Specific Plan and Alternatives, described in Table 1, below.

SETTING

The Planning area is Cupertino, which lies in the northwestern portion of Santa Clara County. The Planning area is located in the western portion of 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 ($PM_{2.5}$).

TABLE 1: Summary of Project and Project Alternative Development						
	Land Uses					
Scenario	**Commercial** (square footage)	**Office** (square footage)	**Hotel** (rooms)	**Residential** (dwelling units)	**Green Roof** (acres)	**Civic Space** (square feet)
Proposed Specific Plan	600,000	2,000,000	339	800	30	65,000 (10,000 of which would be for STEM lab use)
Project Alternatives						
General Plan Buildout with Maximum Residential Alternative	600,000	1,000,000	339	2,640	30	65,000 (10,000 of which would be for STEM lab use)
Retail and Residential Alternative	600,000	0	339	4,000	0	0
Occupied/Re-Tenanted Mall Alternative	1,207,774	0	148	0	0	0

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.

Sensitive Receptors

Some groups of people are more affected by air pollution than others. The State has identified the following people 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. BAAQMD-recommended exposure parameters were used for the cancer risk calculations, as described in *Attachment 1*.

Health effects of criteria pollutants and their potential sources are described below and summarized in Table 2.

TABLE 2 Health Effects of Air Pollutants

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

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

Regional Air Quality

The Vallco Special Area Specific Plan 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.

The Vallco Special Area Specific Plan 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.

Existing Air Pollutant Levels

BAAQMD monitors air pollution at various sites within the Bay Area. The closest official monitoring station is located in Cupertino at 22601 Voss Avenue. However, that station closed in 2013, so data from San Jose are presented for years 2014 through 2016. Pollutant monitoring results for the years 2012 and 2013 at the Cupertino ambient air quality monitoring station are shown in Table 3.

TABLE 3 Ambient Air Quality at the Cupertino and San Jose Monitoring Stations

Pollutant	Average Time	Measured Air Pollutant Levels				
		Cupertino		San Jose		
		2012	2013	2014	2015	2016
Ozone (O_3)	1-Hour	0.083 ppm	0.091 ppm	0.089ppm	0.094 ppm	0.087 ppm
	8-Hour	0.067 ppm	**0.077 ppm (1 day)**	0.066 ppm	**0.081 ppm (2 days)**	0.066 ppm
Carbon Monoxide (CO)	8-Hour	0.73 ppm	ND	ND	ND	ND
Nitrogen Dioxide (NO_2)	1-Hour	0.045 ppm	0.042 ppm	0.058 ppm	0.049 ppm	0.051 ppm
	Annual	0.008 ppm	0.009 ppm	0.013 ppm	0.012 ppm	0.011 ppm
Respirable Particulate Matter (PM_{10})	24-Hour	41.5 µg/m^3	33.5 µg/m^3	**56.4 µg/m^3 (1 day)**	**58.8 µg/m^3 (1 day)**	41.0 µg/m^3
	Annual	13.5 µg/m^3	14.5 µg/m^3	20.0 µg/m^3	**21.9 µg/m^3**	18.3 µg/m^3
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	27.5 µg/m^3	**38.9 µg/m^3**	**60.4 µg/m^3 (2 days)**	**49.4 µg/m^3 (2 days)**	22.7 µg/m^3
	Annual	ND	8.5 µg/m^3	8.4 µg/m^3	9.9 µg/m^3	8.4 µg/m^3

Source: CARB, 2018. https://www.arb.ca.gov/adam/

Note: ppm = parts per million and µg/m^3 = micrograms per cubic meter
Values reported in **bold** exceed ambient air quality standard
ND = No Data available.

Greenhouse Gases

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.

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 Implement Plan (SIP). Federal standards include both primary and secondary standards. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.[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.

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 4 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 4 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.

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.

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.

[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.

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 Jose, Redwood City/East Palo Alto, and Eastern San Francisco.

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 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.

City of Cupertino General Plan

The *Cupertino General Plan Community Vision 2015 – 2040* contains goals and policies to reduce air and GHG emissions. The following are relevant to the Plan:

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

Policy ES-1.1: Principles of Sustainability
Incorporate the principles of sustainability into Cupertino's planning, infrastructure and development process in order to improve the environment, reduce GHG emissions and meet the needs of the community without compromising the needs of future generations.

Policy ES-2.1: Conservation and Efficient Use of Energy Resources
Encourage the maximum feasible conservation and efficient use of electrical power and natural resources for new and existing residences, businesses, industrial and public uses.

Policy ES-3.1: Green Building Design
Set standards for the design and construction of energy and resource conserving/efficient building.

Policy ES-4.1: New Development
Minimize the air quality impacts of new development projects and air quality impacts that affect new development.

> *ES-4.1.1: Toxic Air Contaminants*
> Continue to review projects for potential generation of toxic air contaminants at the time of approval and confer with BAAQMD on controls needed if impacts are uncertain.
>
> *ES-4.1.2: Dust Control*
> Continue to require water application to non-polluting dust control measures during demolition and the duration of the construction period.
>
> *ES-4.1.3: Planning*
> Ensure that land use and transportation plans support air quality goals.

Policy ES-7.11: Water Conservation and Demand Reduction Measures
Promote efficient use of water throughout the City in order to meet State and regional water use reduction targets.

Greenhouse Gas Regulatory Framework

This section summarizes key federal, State, and City statutes, regulations, and policies that would apply to the Plan. Global climate change resulting from GHG emissions is an emerging environmental concern being raised and discussed at the international, national, and statewide level. At each level, agencies are considering strategies to control emissions of gases that contribute to global climate change.

Federal Regulations

The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC). While the United States signed the Kyoto Protocol, which would have required reductions in GHGs, Congress never ratified the protocol. The federal government chose voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science. At this time, there are no federal regulations or policies pertaining to GHG emissions from proposed plans like the proposed project Plan.

State Regulations

The State of California is concerned about GHG emissions and their effect on global climate change. The State recognizes that "there appears to be a close relationship between the concentration of GHGs in the atmosphere and global temperatures" and that "the evidence for climate change is overwhelming." The effects of climate change on California, in terms of how it would affect the ecosystem and economy, remain uncertain. The State has many areas of concern regarding climate change with respect to global warming. According to the 2006 Climate Action Team Report, the following climate change effects and conditions can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, effecting the state's water supply;
- Increasing temperatures from 8 to 10.4 degrees Fahrenheit (°F) under the higher emission scenarios, leading to a 25 to 35 percent increase in the number of days ozone pollution standards are exceeded in most urban areas;
- Coastal erosion along the length of California and seawater intrusion into the Sacramento River Delta from a 4- to 33-inch rise in sea level. This would exacerbate flooding in already vulnerable regions;
- Increased vulnerability of forests due to pest infestation and increased temperatures;
- Increased challenges for the state's important agricultural industry from water shortages, increasing temperatures, and saltwater intrusion into the Delta; and
- Increased electricity demand, particularly in the hot summer months.

Assembly Bill 1575 (1975)

In 1975, the Legislature created the California Energy Commission (CEC). The CEC regulates electricity production that is one of the major sources of GHGs.

Title 24, Part 6 of the California Code of Regulations (1978)

The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

Assembly Bill 1493 (2002)

Assembly Bill (AB) 1493 required CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks.

State of California Executive Order S-3-05 (2005)

The Governor's Executive Order established aggressive emissions reductions goals: by 2010, GHG emissions must be reduced to 2000 levels; by 2020, GHG emissions must be reduced to 1990 levels; and by 2050, GHG emissions must be reduced to 80 percent below 1990 levels.

In June 2005, the Governor of California signed Executive Order S-3-05, which identified Cal/EPA as the lead coordinating State agency for establishing climate change emission reduction targets in California. A "Climate Action Team," a multi-agency group of State agencies, was set up to implement Executive Order S-3-05. Under this order, the State plans to reduce GHG emissions to 80 percent below 1990 levels by 2050. GHG emission reduction strategies and measures to reduce global warming were identified by the California Climate Action Team in 2006.

Assembly Bill 32 (AB 32), California Global Warming Solutions Act (2006)/Senate Bill 32 (SB 32, 2016)

AB 32, the Global Warming Solutions Act of 2006, codifies 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 of carbon dioxide equivalent (MMT 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 million metric tons of CO2e. 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 million metric tons of CO2e. Thus, an estimated reduction of 80 million metric tons of CO2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

In April 2015, Governor Brown signed Executive Order B-30-15 which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed 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.

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 CO2e per capita (statewide) by 2030 and no more than 2 metric tons CO2e 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.

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.

Executive Order S-13-08 (2008)

This Executive Order directed California agencies to assess and reduce the vulnerability of future construction projects to impacts associated with sea-level rise.

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 a 50 percent renewables target by 2030.

Statewide GHG Emissions Inventory

The California Greenhouse Gas Emission Inventory – 2017 Edition (released June 6, 2017) indicates that total California emissions in 2015 were 440.4 MMT of CO_2e[5]. Approximately 37 percent of these emissions were associated with transportation (i.e., all sectors), followed by the Industrial sector at 21 percent and the Electric Power sector at 19 percent. The statewide inventory

[5] See https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2015/ghg_inventory_trends_00-15.pdf accessed June 8, 2017

was estimated to have peaked in 2004. The current 2015 inventory is estimated to represent an overall decrease of 10 percent from 2004 levels.

Bay Area Air Quality Management District

BAAQMD is the regional government agency that regulates sources of air pollution within the nine San Francisco Bay Area counties. The BAAQMD regulates GHG emissions through the following plans, programs, and guidelines.

BAAQMD Climate Protection Program

The BAAQMD established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the San Francisco Bay Area Air Basin. The climate protection program includes measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative sources of energy, all of which assist in reducing emissions of GHG and in reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

BAAQMD CEQA Air Quality Guidelines

The BAAQMD adopted revised CEQA Air Quality Guidelines on June 2, 2010 and then adopted a modified version of the Guidelines in May, 2017. The BAAQMD CEQA Air Quality Guidelines include thresholds of significance for greenhouse gas emissions. Under the latest CEQA Air Quality Guidelines, a local government may prepare a Qualified Greenhouse Gas Reduction Strategy that is consistent with AB 32 goals. If a project is consistent with an adopted Qualified Greenhouse Gas Reduction Strategy, it can be presumed that the project will not have significant GHG emissions under CEQA.[6] The BAAQMD also developed a quantitative threshold for project- and plan-level analyses based on estimated GHG emissions, as well as per service population metrics. These thresholds are the basis for which post-2020 GHG thresholds have been developed.

City of Cupertino Climate Action Plan

The City of Cupertino has an adopted qualified GHG reduction plan.[7] This program meets the requirements of a GHG Reduction Strategy under State CEQA Guidelines Section 15183.5. Communitywide emissions were 307,288 MT CO_2e in 2010 (baseline). The plan includes a goal

[6] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.
[7] City of Cupertino, 2015. *City of Cupertino Climate Action Plan*. January.

to reduce communitywide emissions to 15 percent below 2010 baseline levels by 2020, 49 percent by 2035 and 83 percent by 2050.

PROJECT IMPACTS AND MITIGATION MEASURES

Significance Criteria

Per Appendix G of the CEQA Guidelines and BAAQMD recommendations, air quality and GHG impacts are considered significant if implementation of the Plan would:

1) Conflict with or obstruct implementation of an applicable air quality plan;
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
3) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
4) Expose sensitive receptors to substantial pollutant concentrations;
5) Create objectionable odors affecting a substantial number of people;
6) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
7) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The following screening thresholds and significance criteria would be applicable to the plan.

<u>Consistency with Clean Air Planning Efforts</u>

According to the BAAQMD Air Quality Guidelines, proposed plans must show over the planning period of the plan that:

- The plan supports the primary goals of the current air quality plan;
- The plan incorporates current air quality plan control measures as appropriate to the plan area
- The plan does not disrupt or hinder implementation of any air quality plan control measures; and

<u>Construction and Operation Emissions</u>

The BAAQMD Air Quality Guidelines do not have thresholds related to direct and indirect criteria pollutant emissions resulting from plan implementation. Traffic resulting from the implementation

of the Plan would cause a significant local air quality impact if emissions of CO cause a projected exceedance of the ambient CO State standard of 9.0 parts per million (ppm) for 8-hour averaging period. This would be considered to cause or contribute substantially to an existing or projected air quality violation.

Exposure of Receptors to Toxic Air Contaminants

Unlike industrial or stationary sources of air pollution, residential development and other development where sensitive receptors would be located do not require air quality permits. Nonetheless, this type of development can expose people to unhealthy conditions. The BAAQMD Air Quality Guidelines Thresholds of Significance for Plans with regard to community risk and hazard impacts are:

- Identify special overlay zones around existing and planned sources of TACs and PM (including adopted risk reduction plan areas), and special overlay zones on each side of all freeways and high-volume roadways; and
- The Plan must also identify goals, policies, and objectives to minimize potential impacts and create overlay zones around sources of TACs, PM, and hazards.

Community risk impacts resulting from construction of the Plan build-out have been analyzed at the project level using the BAAQMD-recommended thresholds below.

Single Source Impacts

If emissions of TACs or $PM_{2.5}$ exceed any of the thresholds of significance listed below, the proposed project would result in a significant impact and mitigation would be required:

- An excess cancer risk level of more than 10.0 in 1 million, or a non-cancer (chronic or acute) hazard index greater than 1.0.
- An incremental increase of more than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$.

Cumulative Source Impacts

A project would have a cumulatively considerable impact if the combined total of all sources within a 1,000-foot radius of the fence line of a source or from the location of a receptor, plus the contribution from the project, exceeds the following thresholds:

- An excess cancer risk levels of more than 100 in one million or a chronic non-cancer hazard index (from all local sources) greater than 10.0.
- An incremental increase of more than 0.8 $\mu g/m^3$ annual average $PM_{2.5}$.

Odors

Odors are assessed based on the potential of the Plan to result in odor complaints. The BAAQMD Air Quality Guidelines Thresholds of Significance for plans with regard to odor impacts are:

- Identify special overlay zones around existing and planned sources of odors; and

- The Plan must identify goals, policies, and objectives to minimize potential impacts and create buffer distances between sources of odors and receptors.

Greenhouse Gas Emissions

The BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric tons per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32 that was developed in 2007. 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 2.6 MT CO2e/year/service population. This is calculated for 2030 based on the GHG reduction goals of EO B-30-15, taking into account the 1990 inventory and the projected 2030 statewide population and employment levels.[8]

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

BAAQMD is the regional agency responsible for overseeing compliance with State and Federal laws, regulations, and programs within the SFBAAB. BAAQMD, with assistance from ABAG and MTC, has prepared and implements specific plans to meet the applicable laws, regulations, and programs. The most recent and comprehensive of which is the *Bay Area 2017 Clean Air Plan*.[9] The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use Planning affects vehicle travel, which in turn affects region-wide emissions of air pollutants and GHGs.

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

- 40 measures to reduce stationary and area sources;
- 8 mobile source measures;
- 23 transportation control measures (including land use strategies);
- 4 building sector measures;
- 2 energy sector measures;
- 4 agriculture sector measures;

[8] 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.

[9] Bay Area Air Quality Management District (BAAQMD), 2017. *Final 2017 Clean Air Plan.*

- 3 natural and working lands measures;
- 4 waste sector measures;
- 2 water sector measures; and
- 3 super-GHG pollutants measures.

In developing the control strategy, BAAQMD identified the full range of tools and resources available, both regulatory and non-regulatory, to develop each measure. Implementation of each control measure will rely on some combination of the following:

- Adoption and enforcement of rules to reduce emissions from stationary sources, area sources, and indirect sources.
- Revisions to the BAAQMD's permitting requirements for stationary sources.
- Enforcement of CARB rules to reduce emissions from heavy-duty diesel engines.
- Allocation of grants and other funding by the Air District and/or partner agencies.
- Promotion of best policies and practices that can be implemented by local agencies through guidance documents, model ordinances, and other measures.
- Partnerships with local governments, other public agencies, the business community, non-profits, and other groups.
- Public outreach and education.
- Enhanced air quality monitoring.
- Development of land use guidance and CEQA guidelines, and Air District review and comment on Bay Area projects pursuant to CEQA.
- Leadership and advocacy.

This approach relies upon lead agencies to assist in implementing some of the control measures. A key tool for local agency implementation is the development of land use policies and implementing measures that address new development or redevelopment in local communities.

The BAAQMD CEQA Guidelines recommend that plans measure VMT growth versus population growth due to implementation of the proposed Plan. However, since the Plan does not include existing residences, this metric is not applicable. This was confirmed with BAAQMD.[10]

The Guidelines set forth criteria for determining consistency with the Clean Air Plan. In general a plan is considered consistent if a) the Plan supports the primary goals of the Clean Air Plan; b) includes control measures; and c) does not interfere with implementation of the Clean Air Plan measures. As a sustainable, transit-oriented development, the Plan would generally be consistent with Clean Air Plan measures intended to reduce automobile and energy use, which are discussed below. Table 5 lists the relevant Clean Air Plan policies to the Plan and indicates consistency with the policies.

[10] Personal correspondence between Josh Carman, I&R, and Alison Kirk, BAAQMD, August 17, 2017.

TABLE 5 BAAQMD Control Strategy Measures

Control Measures	Consistency
Transportation	
TR1: Clean Air Teleworking Initiative	*Consistent:* The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) includes a TDM program (refer to Section 2.4.4), which would include measures such as increased support for telecommuting.
TR2: Trip Reduction Programs	*Consistent:* The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) includes a TDM program (refer to Section 2.4.4), which would include measures such as transit subsidies, carpool incentives, bicycling incentives, carshare memberships, and/or vanpools.
TR 5: Transit Efficiency and Use	*Consistent:* While this is mostly a regionally implemented measure, the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would include a transit hub to support and encourage transit use (refer to Section 2.4.4).
TR7: Safe Routes to Schools and Safe Routes to Transit	*Consistent*: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would ensure clear and safe pedestrian circulation. Convenience, safety and integrated access would be prioritized for all modes of transportation, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, and M-2.5 and strategies LU-19.1.6, LU-19.1.7, and LU-13.7.1.
TR8: Ridesharing, Last-Mile Connection	*Consistent:* The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) includes a TDM program (refer to Section 2.4.4), which would include measures such as carpool incentives, carshare memberships, additional last-mile services, and/or vanpools.
TR9: Bicycle and Pedestrian Access and Facilities	*Consistent*: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would create a dense, walkable environment, simplify wayfinding, and ensure clear and safe pedestrian circulation, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, and M-2.5 and strategies LU-19.1.6, LU-19.1.7, and LU-13.7.1.
TR10: Land Use Strategies	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would design new buildings around walkable streets and close to transit, creating opportunity for more sustainable transportation modes less reliant on the car, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, and M-2.5 and strategies LU-19.1.6, LU-19.1.7, and LU-13.7.1.
TR13: Parking Policies	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would reduce demand for parking through design with the implementation of a TDM program. Parking for drive-alone commuters for the office uses would be limited to what the Municipal Code requires. Alternative, the City's Parking Ordinance allows alternative parking standards in Planned Development zones if they can be supported by a parking study.

Control Measures	Consistency
Building	
BL1: Green Buildings	*Consistent:* Environmental sustainability would be implemented by building-, site-, and district-scale improvements. New development would incorporate sustainable design features and materials, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, M-2.5, ES-7.2, and HE-1.3 and strategies LU-19.1.6, LU-19.1.7, LU-13.7.1, LU-19.1.13, ES-7.11.4, ES-7.11.1, INF-2.5.2, INF-7.3.2, INF-7.3.3, and RPF-3.1.1.
BL2: Decarbonize Buildings	*Consistent:* Electricity is provided to the site by Silicon Valley Clean Energy (SVCE). SVCE customers are automatically enrolled in the GreenStart plan, which generates its electricity from 100 percent carbon free sources; with 50 percent from solar and wind sources, and 50 percent from hydroelectric. Customers have the option to enroll in the GreenPrime plan, which generates its electricity from 100 percent renewable sources such as wind and solar.
BL4: Urban Heat Island Mitigation	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would reduce the urban heat island effect by incorporating measures such as cool surface treatments for parking facilities, cool roofs, cool paving, and landscaping to provide well-shaded areas.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would provide a comfortable, well-shaded environment.
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would aim to structure facilities to be "zero-waste ready" and provide means for waste separation at point of collection.
Water Control Measures	
WR2: Support Water Conservation	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would maximize water reuse and aim to capture and treat stormwater on-site, consistent with General Plan strategies ES-7.11.4, ES-7.11.5, and RPC-3.1.1. In addition, recycled water is proposed to irrigate landscaping.

As indicated in Table 5, the Plan would include implementing policies and measures that are generally consistent with the applicable Clean Air Plan control measures. The Plan would not obstruct implementation of the Clean Air Plan control measures.

Impact 2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Construction Period Emissions

Implementation of the Plan would result in short-term emissions from construction activities associated with subsequent development, including site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. The potential health risk impact from construction is addressed in Impact 4.

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*.

Average daily construction exhaust emissions were predicted using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. Inputs to the model included the proposed land uses, construction start year, total 10-year expected duration, 2,000,000 cubic yard (cy) of soil export, and 2,170,350 square feet (sf) of demolition (see *Attachment 2* for the assumptions used). The model predicts emissions of ozone precursor pollutants (i.e., ROG and NO_x) and particulate matter (i.e., PM_{10} and $PM_{2.5}$). The model also computes emissions of CO_2. The project schedule assumes that the project would be built out over a period of approximately 10 years beginning in 2019, or an estimated 2,600 construction workdays (based on an average of 260 workdays per year). Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 6 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 6, predicted project emissions would exceed the BAAQMD significance threshold for NO_X. *Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this impact, though not to a level of less than significant. Therefore, this impact would remain significant and unavoidable*. *Attachment 2* includes the CalEEMod output for construction emissions.

TABLE 6 Construction Period Emissions

Scenario	ROG	NO_x	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Proposed Project Construction Emissions (tons)	41.10 tons	194.00 tons	1.68 tons	1.57 tons
Average daily emissions (pounds)[1]	31.6 lbs.	149.2 lbs.	1.3 lbs.	1.2 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**Yes**	**No**	**No**
Mitigated Proposed Project Construction Emissions (tons)		145.50 tons		
Mitigated average daily emissions (pounds)[1]		111.9 lbs.		
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**Yes**	**No**	**No**
Maximum Residential Alternative Construction Emissions (tons)	51.64 tons	199.21 tons	1.73 tons	1.62 tons
Average daily emissions (pounds)[1]	39.7 lbs.	153.2 lbs.	1.3 lbs.	1.2 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**Yes**	**No**	**No**
Mitigated Maximum Residential Alternative Construction Emissions (tons)		149.41 tons		
Mitigated average daily emissions (pounds)[1]		114.9 lbs.		
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**Yes**	**No**	**No**
Retail and Residential Alternative Construction Emissions (tons)	54.74 tons	175.51 tons	1.69 tons	1.58 tons
Average daily emissions (pounds)[1]	42.1 lbs.	135.0 lbs.	1.3 lbs.	1.2 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**Yes**	**No**	**No**
Mitigated Retail and Residential Alternative Construction Emissions (tons)		131.63 tons		
Mitigated average daily emissions (pounds)[1]		101.26 lbs.		
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**Yes**	**No**	**No**
Notes: [1] Assumes 2,600 workdays				

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Measures to Control Particulate Matter Emissions during Construction. Measures to reduce diesel particulate matter (DPM) and PM_{10} from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided.

Dust (PM_{10}) Control Measures:

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. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
10. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.
11. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.
12. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
13. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
14. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
15. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
16. Minimizing the idling time of diesel powered construction equipment to two minutes.

Mitigation Measure AQ-2: Use Construction equipment that has low diesel particulate matter exhaust and NOx emissions.

Exhaust Emission (NOx and PM) Control Measures:

The project shall develop a plan demonstrating that the off-road equipment (more than 25 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 25 percent NOx reduction and 65 percent PM (particulate matter) exhaust reduction compared to the CalEEMod modeled average used in this report. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. The following are feasible methods:

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NOx and PM, where feasible.
2. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 85 percent reduction in particulate matter exhaust.
3. Use of alternatively-fueled equipment with lower NOx emissions that meet the NOx and PM reduction requirements above.
4. Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than 2 minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.
5. All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category HDDT) used at the project site (such as

haul trucks, water trucks, dump trucks, and concrete trucks) shall be model year 2010 or newer.
6. Develop a Transportation Demand Management program for construction worker travel to reduce worker trips by 10 percent.
7. Provide line power to the site during the early phases of construction to minimize the use of diesel powered stationary equipment, such as generators.
8. Enforce idling limit of two minutes unless subject to State law exemptions (e.g., safety issues).

Effectiveness of Mitigation: BAAQMD recommends that a 5-percent reduction could be applied for NOx, emissions to account for implementation of the appropriate Basic Construction Mitigation Measures, that are part of Mitigation Measure AQ-1. The effectiveness of Mitigation Measure AQ-2 was based on additional modeling. The CalEEMod model was used to estimate the effectiveness of this mitigation measure using Tier 4 interim and Tier 4 final equipment. Based on modeling for the Proposed Project, 58 percent of the emissions are associated with truck hauling, vendor and soil/demolition debris hauling. The use of Tier 4 interim equipment would reduce NOx emissions by 5 percent and use of Tier 4 final equipment would reduce emission by 10 percent. Reducing the amount of portable equipment use by providing line power would reduce off-road construction emissions further. The EMFAC2017 model was used to measure the effectiveness of using a newer truck fleet, assuming 2020 conditions (the CalEEMod model does not have this capability). Use of a newer model year trucks for soil and vendor hauling would reduce traffic-related emissions by 20 percent (overall 12 percent). A TDM program for workers could reduce NOx emissions by about 1 percent. Overall, a 25 percent reduction in NOx emissions could be achieved.

Operational Emissions

Additionally, implementation of the Plan would result in long-term area and mobile source emissions from operation and use of subsequent development. Implementation of the Plan could include stationary sources of pollutants that would be required to obtain permits to operate in compliance with BAAQMD rules. These sources include, but are not limited to, dry cleaners and back up diesel generators. The permit process ensures that these sources would be equipped with the required emission controls and that, individually, these sources would result in a less-than-significant impact.

Operational emissions from implementation of the Plan were computed using CalEEMod.

Year of Analysis

2029 was chosen as the operational year, as this is the first full year that the Plan is expected to be fully operational.

Land Use Descriptions

The following land uses types and sizes were input to CalEEMod:

Existing

- 296,716 square feet (sf) entered as "Regional Shopping Center;"
- 715,090 sf entered as "Enclosed Parking with Elevator."

Occupied/Re-Tenanted Mall Alternative

- 1,280,000 square feet (sf) as "Regional Shopping Center;"
- 148 rooms entered as "Hotel;"
- 5,026 spaces entered as "Enclosed Parking with Elevator."

Proposed Project

- 600,000 sf entered as "Regional Shopping Center;"
- 800 dwelling units entered as "Apartments Mid Rise;"
- 2,000,000 sf entered as "General Office Building;"
- 339 rooms entered as "Hotel;"
- Transit hub entered as "User Defined Parking;"
- 30 acres entered as "City Park"/Green Roof,
- 45,000 sf entered as "Government (Civic Center),"
- 10,000 sf entered as "Racquet Club"/recreational community center,
- 10,000 sf entered as "Junior College (2 Yr)/STEM Lab,
- 11,391 spaces entered as "Enclosed Parking with Elevator."

Maximum Residential Alternative

- 600,000 sf entered as "Regional Shopping Center;"
- 2,640 dwelling units entered as "Apartments Mid Rise;"
- 1,000,000 sf entered as "General Office Building;"
- 339 rooms entered as "Hotel;"
- Transit hub entered as "User Defined Parking;"
- 30 acres entered as "City Park"/Green Roof,
- 45,000 sf entered as "Government (Civic Center),"
- 10,000 sf entered as "Racquet Club"/recreational community center,
- 10,000 sf entered as "Junior College (2 Yr)/STEM Lab,
- 11,562 spaces entered as "Enclosed Parking with Elevator."

Retail and Residential Alternative

- 600,000 sf entered as “Regional Shopping Center;”
- 4,000 dwelling units entered as “Apartments Mid Rise;”
- 339 rooms entered as “Hotel;”
- Transit hub entered as “User Defined Parking;”
- 10,773 spaces entered as “Enclosed Parking with Elevator.”

Mobile Emissions

CalEEMod allows the user to enter specific vehicle trip generation rates, which were input to the model using the daily trip generation rate provided in the project trip generation table, including the mixed-use trip reductions specified. The default trip lengths and trip types specified by CalEEMod were used. The project traffic report contains an estimate of daily vehicle miles traveled (VMT), whereas the CalEEMod model provides only an estimate of annual VMT. The relative difference between weekday and weekend trip rates in CalEEMod was used to estimate a project annual VMT of 104,904,300 based on the daily VMT (assumed to be weekday) from the project traffic report, whereas the CalEEMod annual VMT is reported as 82,550,523. To be conservative, CalEEMod mobile emissions were adjusted by a factor of 1.27 to account for this discrepancy between the CalEEMod VMT and the project traffic report estimated VMT. The same methodology was used for the alternatives mobile emissions, which were adjusted by a factor of 0.74 for Occupied/Re-Tenanted Mall Alternative, 1.24 for the Maximum Residential Alternative, 0.76 for the Retail and Residential Alternative, and 1.04 for Existing.

For the purposes of evaluating operational emissions resulting from implementation and buildout of the Plan, estimated operational period emissions in tons per year and pounds per day are summarized in Table 7. As shown in Table 7, the proposed project would exceed the significance thresholds for ROG, NO_X and PM_{10}. *Implementation of Mitigation Measure AQ-3 and AQ-5 would reduce this impact, but not to a level of less than significant. Therefore, this impact would remain significant and unavoidable. Attachment 2* contains the CalEEMod output data.

TABLE 7 2029 Operational Air Pollutant Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Existing Operational Emissions (tons)	2.65 tons	5.29 tons	5.82 tons	1.58 tons
Occupied/Re-Tenanted Mall Alternative Emissions (tons)	9.83 tons	14.26 tons	15.19 tons	4.16 tons
Net Emissions (minus Existing)	7.18 tons	8.97 tons	9.37 tons	2.58 tons
Proposed Project (tons)	26.23 tons	35.20 tons	39.50 tons	10.93 tons
Net Proposed Project (minus Existing)	23.58 tons	29.91 tons	33.68 tons	9.35 tons
BAAQMD Thresholds (tons per year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Maximum Residential Alternative (tons)	30.29 tons	33.61 tons	37.29 tons	10.39 tons
Net Emissions (minus Existing)	27.64 tons	28.32 tons	31.47 tons	8.81 tons
BAAQMD Thresholds (tons per year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Retail and Residential Alternative (tons)	28.92 tons	20.18 tons	20.95 tons	5.98 tons
Net Emissions (minus Existing)	26.27 tons	14.89 tons	15.13 tons	4.40 tons
BAAQMD Thresholds (tons per year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Average Daily Existing Emissions (pounds)[1]	14.5 lbs.	29.0 lbs.	31.9 lbs.	8.7 lbs.
Net Average Daily Occupied/Re-Tenanted Mall Alternative Emissions (pounds)[1]	39.3 lbs.	49.2 lbs.	51.3 lbs.	14.1 lbs.
Net Average Daily Proposed Project Emissions (pounds)[1]	129.2 lbs.	163.9 lbs.	184.5 lbs.	51.2 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Net Average Daily Maximum Residential Alternative Emissions (pounds)[1]	151.5 lbs.	155.2 lbs.	172.4 lbs.	48.3 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Net Average Daily Retail and Residential Alternative Emissions (pounds)[1]	144.0 lbs.	81.6 lbs.	82.9 lbs.	24.1 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Notes: [1] Assumes 365-day operation.				

TABLE 8 Mitigated 2029 Operational Air Pollutant Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Proposed Project (tons)	24.94 tons	35.18 tons	39.49 tons	10.93 tons
Net Proposed Project (minus Existing)	22.29 tons	29.89 tons	33.67 tons	9.35 tons
BAAQMD Thresholds (tons per year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Maximum Residential Alternative (tons)	28.56 tons	33.52 tons	37.28 tons	10.38 tons
Net Emissions (minus Existing)	25.91 tons	28.23 tons	31.46 tons	8.80 tons
BAAQMD Thresholds (tons per year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Retail and Residential Alternative (tons)	26.96 tons	20.04 tons	20.94 tons	5.97 tons
Net Emissions (minus Existing)	24.31 tons	14.75 tons	15.12 tons	4.39 tons
BAAQMD Thresholds (tons per year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Net Average Daily Proposed Project Emissions (pounds)[1]	122.1 lbs.	163.8 lbs.	184.5 lbs.	51.2 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Net Average Daily Maximum Residential Alternative Emissions (pounds)[1]	142.0 lbs.	154.7 lbs.	172.4 lbs.	48.2 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Net Average Daily Retail and Residential Alternative Emissions (pounds)[1]	133.2 lbs.	80.8 lbs.	82.8 lbs.	24.1 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**
Notes: [1] Assumes 365-day operation.				

Mitigation Measure AQ-3: Require the use of Low VOC paint for ongoing architectural coating and no hearths. The project applicant shall require the use of Low VOC paint (i.e., 50 g/L or less) on all operational architectural coatings and that no hearths or fireplaces by installed in the residential uses (including natural gas-powered).

Impact 3: Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Monitoring data from all ambient air quality monitoring stations in the Bay Area indicate that existing carbon monoxide levels are currently below national and California ambient air quality standards. Monitored CO levels have decreased substantially since 1990 as newer vehicles with greatly improved exhaust emission control systems have replaced older vehicles. The Bay Area has been designated as an attainment area for the CO standards. The highest measured levels in Cupertino (the closest monitoring stations to the Planning Area) during the past five years are less than 1.0 ppm for 8-hour averaging periods, compared with State and federal criteria of 9.0 ppm.

Even though current CO levels in the Bay Area are well below ambient air quality standards, and there have been no exceedances of CO standards in the Bay Area since 1991, elevated levels of CO still warrant analysis. CO hotspots (occurrences of localized high CO concentrations) could still occur near busy congested intersections. Recognizing the relatively low CO concentrations experienced in the Bay Area, the BAAQMD's CEQA Air Quality Guidelines state that a project would have a less-than-significant impact if it would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. 2029 Plan peak hour traffic volumes would be far less. Since intersections affected by the project would have volumes less than the threshold of 44,000 vehicles per hour, the impact of the project related to localized CO concentrations would therefore be less than significant.

Impact 4: Expose project sensitive receptors to substantial pollutant concentrations?

Subsequent land use activities associated with implementation of the Plan could potentially include short-term construction sources of TACs and long-term operational sources of TACs, including stationary and mobile sources.

Long-Term Operational Sources

According to the BAAQMD CEQA Air Quality Guidelines, for a Plan to have a less-than-significant impact with respect to TACs, overlay zones must be established around existing and proposed land uses that would emit these air pollutants. Overlay zones to avoid TAC impacts must be reflected in local plan policies, land use maps, or implementing ordinances.

The BAAQMD CEQA Air Quality Guidelines consider exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard, to be significant. For cancer risk, which is a concern with DPM and other mobile-source TACs, the BAAQMD Risk Management Policy considers an increased risk of contracting cancer that is 10 in one million chances or greater, to be significant risk for a single source. The BAAQMD CEQA Guidelines

also consider exposure to annual $PM_{2.5}$ concentrations that exceed 0.3 micrograms per cubic meter ($\mu g/m^3$) to be significant. Non-cancer risk would be considered significant if the computed Hazard Index is greater than 1.0.[11] For cumulative sources, the BAAQMD CEQA Guidelines consider 100 in one million excess cancer risk, $PM_{2.5}$ concentrations that exceed 0.8 $\mu g/m^3$, and non-cancer Hazard Index greater than 10.0 to be significant.

The Plan would permit and facilitate the development of new sensitive receptors, such as new homes, in locations near arterial and collector roadways, highways, and stationary sources of TAC emissions. Screening levels indicate that sensitive receptors within the Planning Area would be exposed to levels of TACs and/or $PM_{2.5}$ that could cause an unacceptable cancer risk or hazard near highways and stationary sources.

TAC sources were identified within a 1,000 foot radius from the Planning Area. These sources include: stationary sources permitted by BAAQMD, roadways with more than 10,000 annual average daily traffic (AADT), and highways or freeways. Then, using the screening analysis tools – the stationary source screening analysis tool, the highway screening analysis tool, and the roadway screening analysis tool – potential risk and hazard impacts were assessed.

Stationary Sources

The Planning Area has numerous permitted stationary sources. These sources are located throughout the Plan Area, but mostly in industrial and commercial areas. The impact of these sources can only be addressed on a project-by-project basis, since impacts are generally localized. To assist lead agencies, BAAQMD has provided a database of permitted sources for each County. The database is contained in a Google Earth tool that allows a user to identify stationary sources within 1,000 feet of a receptor. The database can then be accessed through Google Earth to determine conservative screening levels of cancer risk, hazards and $PM_{2.5}$ concentrations. This allows many of the sources to be screened out of any additional analysis. Stationary sources that show the potential for significant community risk impacts after this first level of review are further analyzed by contacting BAAQMD for additional information and applying distance adjustment factors. A refined modeling analysis would be required if there are sources that still have potentially significant impacts after this level of review. A refined analysis would include dispersion modeling of the source using emissions and source information provided by BAAQMD. If the source still has significant community risk impacts following this level of effort, then risk reduction strategies would have to be implemented by the project on a case-by-case basis, including but not limited to, mechanical air filtration systems.

[11] The Hazard Index is the ratio of the computed receptor exposure level to the level known to cause acute or chronic adverse health impacts, as identified by BAAQMD.

When siting new sensitive receptors, the BAAQMD Guidelines advise that lead agencies examine existing or future proposed sources of TAC and/or $PM_{2.5}$ emissions that would adversely affect individuals within the planned project. New residences and sensitive receptors could be located near stationary sources of TACs located throughout the Planning Area, such as gasoline dispensing stations, emergency back-up diesel generators, and dry cleaners. Without proper setbacks or mitigation measures, these sources could result in TAC levels that are considered significant for new sensitive receptors.

Gasoline Stations

The Plan Bay Area DEIR[12] recommends a screening setback of 300 feet for large gasoline dispensing facilities (3.6 million gallons of throughput a year) and 50 feet for small facilities. Gasoline stations have recently reduced their emissions substantially with the incorporation of enhanced vapor recovery (EVR) controls.

Dry Cleaning Facilities

Perchlorethylene (Perc) is the solvent used commonly in past dry cleaning operations. Perc is a TAC, because it has the potential to cause cancer. In 2005, CARB recommended setbacks of 300 feet between dry cleaning facilities that emit Perc and sensitive land uses. Since then, CARB has enacted new rules to substantially reduce Perc emissions and phase out the use of TACs in dry cleaning by 2023. However, CARB's recommended buffers are based on cancer risk assuming on a 70-year exposure computation. Therefore, the 300-foot setback is overly conservative. Now most dry cleaning facilities do not use TACs in their facilities, and those that do will phase it out within the next five years.

Emergency Back-Up Generators

Electricity generators that are powered by diesel engines are common. They are typically located at facilities where uninterrupted electricity is necessary. Common facilities include fire and police stations, hospital or medical treatment facilities, pump stations, schools, offices, and data centers. Diesel engines powering these generators are regulated by BAAQMD and CARB. CARB has established strict emissions limits and operating restrictions for engines larger than 50 horsepower. BAAQMD has developed criteria (Regulation 2 Rule 5) for approval of projects with new or modified emission sources of TACs. As a result, all new engines have very localized impacts and would not be permitted if they would cause significant cancer risks or hazards. Existing engines are permitted to operate for a maximum of 50 hours per year for maintenance or routine testing.

[12] Association of Bay Area Governments, Metropolitan Transportation Commission, 2013. *Draft Plan Bay Area Environmental Impact Report*. State Clearinghouse No. 2012062029. April.

Screening TAC Sources

A search for stationary sources in the Plan Area using BAAQMD's Google Earth *Stationary Source Screening Analysis Tool* did not reveal any that would have a potentially significant impact on project receptors, or they would be removed as part of the project (i.e., Macy's and JC Penny's emergency back-up generators).

Interstate 280

Interstate 280 (I-280) is adjacent to the northern boundary of the Plan Area. The primary source of TAC emissions is from diesel trucks that emit DPM. Additional TAC emissions come from gasoline fueled vehicles which emit organic TAC compounds. $PM_{2.5}$, which is also of concern, is emitted from vehicle exhaust, tire and brake wear, and from re-suspended roadway dust. A review of the traffic information reported by Caltrans for 2016 indicates that in the vicinity of the project area I-280 has 162,000 ADT. About 3.2 percent of these trips are made by trucks.

To assess potential health impacts in the Plan Area from traffic on I-280 a refined analysis was conducted to evaluate potential cancer risks and $PM_{2.5}$ concentrations from traffic. The refined analysis involved developing traffic emissions for the traffic volume and mix of vehicle types on I-280. Then using these emissions as input to an atmospheric dispersion model for roadways, TAC and $PM_{2.5}$ concentrations were calculated throughout the Plan Area. Based on the modeled concentrations, potential exposure to TACs was calculated and associated cancer risks were computed.

Vehicle emissions were calculated using emission factors for traffic on I-280 using CARB's EMFAC2014 model. Default EMFAC2014 vehicle model year distributions for Santa Clara County were used in calculating emissions for 2029. Average daily traffic volumes and truck percentages were based on Caltrans data for I-280 for 2016.[13] 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,[14] which were then applied to the average daily traffic volumes to obtain estimated hourly traffic volumes and emissions for I-280. The modeling was conducted conservatively assuming emissions for the year 2029 are representative of future years. While traffic may increase in the future, vehicle emission rates would continue to decrease at a greater rate than the traffic increase.

For all hours of the day, other than during peak a.m. and p.m. periods, an average free-flow travel

[13] Caltrans, 2017. *2016 Annual Average Daily Truck Traffic on the California State Highway System.* Available: http://www.dot.ca.gov/trafficops/census/

[14] The Burden output from EMFAC2007, CARB's previous version of the 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.

speed of 65 mph was assumed for all vehicles other than heavy duty trucks which were assumed to travel at a speed of 60 mph. Based on traffic data from the Santa Clara Valley Transportation Authority's 2016 Congestion Management Program Monitoring and Conformance Report, traffic speeds during the peak a.m. and p.m. periods were identified.[15] For two hours during the peak a.m. period an average travel speed of 25 mph was used for west-bound traffic. For the p.m. peak period an average travel speed of 60 mph was used for east-bound traffic. The free-flow travel speed was used for the other directions during the peak periods.

Dispersion modeling of DPM, $PM_{2.5}$, and organic TAC emissions was conducted using the AERMOD model, which is recommended by the BAAQMD for this type of analysis.[16] East- and west-bound traffic on I-280 in the vicinity of the Plan Area was evaluated with the model. A five-year data set of hourly meteorological data (2006-2010) from the Mineta San Jose International Airport, formatted for use with the AERMOD model by the BAAQMD, was used in the modeling. Other inputs to the model included road elevations and geometry, hourly traffic volumes, emission rates, and receptor locations and elevations. TAC and $PM_{2.5}$ concentrations were calculated in the Plan Area using a grid of receptors throughout the Plan Area. A receptor height of 1.5 meters (about 5 feet) was used for all receptors to represent the breathing heights of potential residents in the Plan Area.

Increased cancer risks were calculated using the modeled maximum annual DPM and TOG concentrations, and BAAQMD recommended risk assessment methods.[17] 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 increased cancer risks in the Plan Area from traffic on I-280 were calculated to be less than the BAAQMD significance threshold of an increased cancer risk of more than 10 in one million. The maximum infant cancer risk in the Plan Area from I-280 was 4.0 in one million.

The maximum modeled annual DPM concentration was 0.003 $\mu g/m^3$. The maximum computed non-cancer Hazard Index (HI) based on this DPM concentration is 0.0006, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0

In addition to evaluating the cancer risks from TACs, potential $PM_{2.5}$ impacts from vehicle traffic were evaluated. Annual average $PM_{2.5}$ concentrations were computed at each receptor location. To evaluate potential non-cancer health effects due to $PM_{2.5}$, the BAAQMD adopted a significance threshold of an annual average $PM_{2.5}$ concentration greater than 0.3 $\mu g/m^3$. Figure 1 shows the Plan Area and contours lines of maximum annual $PM_{2.5}$ concentration. The contour lines where the $PM_{2.5}$ concentrations are at the BAAQMD significant impact level of 0.3 $\mu g/m^3$ or higher are

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

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

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

highlighted in the figure. For distances within about 530 feet from I-280 in the Plan Area west of North Wolfe Road and within about 620 feet in the Plan Area east of North Wolfe Road, potentially significant $PM_{2.5}$ concentrations would occur.

The emission information, modeling results, and health risk calculations for the receptor with the maximum cancer risk from I-280 traffic are provided in *Attachment 3*.

Roadway TAC Impacts

Stevens Creek Boulevard

Since screening computations indicate increases in excess cancer risk at the project dwelling units closest to Stevens Creek Boulevard that would exceed significance thresholds, a refined analysis of the impacts of TACs and $PM_{2.5}$ to new sensitive receptors is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from Stevens Creek Boulevard. Refined modeling of local roadways predicts lower and more accurate results, 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), emission estimates (i.e., based on traffic speeds and traffic mix), and meteorological conditions near the project.

The refined analysis of the impacts of TACs and $PM_{2.5}$ to new sensitive receptors is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from Stevens Creek Boulevard. This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on Stevens Creek Boulevard using the CARB EMFAC2014 emission factor model and local traffic volume of 45,290 average daily traffic (ADT) volume. The ADT was estimated from the cumulative plus project p.m. peak hour forecast, assuming that ADT is ten times the peak hour volume. DPM emissions are projected to decrease in the future and are reflected in the EMFAC2014 emissions data.

Residential occupation of the project was assumed to begin in 2029 or thereafter. In order to estimate TAC and $PM_{2.5}$ emissions over a 30-year exposure period (2029-2058) for calculating increased cancer risks to new residents from traffic on Stevens Creek Boulevard, the EMFAC2014 model was used to develop vehicle emission factors for the year 2029. Year 2029 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.

The EMFAC2014 model was used to develop vehicle emission factors for the year 2029 using an estimated mix of cars and trucks. Stevens Creek Boulevard carries primarily cars and light-duty trucks. A truck mix of 3.51 percent was assumed based on BAAQMD recommendations for truck

percentages on non-highway roads in Santa Clara County.[18] One-third of the trucks were assumed to be heavy duty trucks and two-thirds were assumed to be medium duty trucks. Default EMFAC2014 vehicle model fleet age distributions for Santa Clara County were assumed in calculating the emissions and the traffic volumes were assumed to increase one percent per year. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[19] which were then applied to the project area traffic volumes to obtain estimated hourly traffic volumes and emissions. For all hours of the day, other than during the two-hour peak a.m. and p.m. periods, an average speed of 35 mph was assumed for all vehicles. Average travel speeds during peak a.m. and p.m. periods were assumed to be 20 mph.

Emissions of total organic gases (TOG) from gasoline-powered vehicles were calculated 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.

$PM_{2.5}$ emissions for vehicles traveling on Stevens Creek Boulevard were modeled using the same basic modeling approach that was used for assessing TAC impacts. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear and from re-entrained roadway dust were included in these emissions. The assessment involved, first, calculating $PM_{2.5}$ emission rates from traffic traveling on the roadway. These emissions were calculated using the EMFAC2014 model and traffic volumes and were calculated in the same manner as discussed above. $PM_{2.5}$ re-entrained dust emissions from vehicles traffic were calculated using CARB emission calculation procedures.[20]

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the EPA AERMOD model, which is recommended by the BAAQMD for this type of analysis.[21] East- and west-bound traffic on Stevens Creek Boulevard within about 1,000 feet of the Plan Area were evaluated with the model. A five-year data set (2006-2010) of hourly meteorological data from the San Jose Airport prepared for use with the AERMOD model by the BAAQMD was used for the modeling. Other inputs to the model included road geometry and elevations, hourly traffic emissions, and receptor locations and elevations. The modeling used grid of receptors spaced every 30 meters

[18] BAAQMD. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. may

[19] 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.

[20] CARB, 2014. *Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust*. Revised and updated, April 2014.

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

(98 feet) within the Plan Area adjacent to Stevens Creek Boulevard. Receptor heights of 1.5 meters (5 feet) were used to represent the breathing heights of potential future residents in the Plan Area.

Increased cancer risks were calculated using the modeled maximum annual DPM and TOG concentrations, and BAAQMD recommended risk assessment methods.[22] 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 increased cancer risks in the Plan Area from traffic on Stevens Creek Boulevard were calculated to be less than the BAAQMD significance threshold of an increased cancer risk of more than 10 in one million. The maximum infant cancer risk in the Plan Area from Stevens Creek Boulevard was 2.3 in one million. In general, cancer risks will decrease with distance from the roadway and with height of the receptors.

The maximum modeled annual DPM concentration was 0.002 $\mu g/m^3$. The maximum computed non-cancer HI based on this DPM concentration is 0.0004, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0

In addition to evaluating the cancer risks from TACs, potential $PM_{2.5}$ impacts from vehicle traffic were evaluated. Annual average $PM_{2.5}$ concentrations were computed at each receptor location. To evaluate potential non-cancer health effects due to $PM_{2.5}$, the BAAQMD adopted a significance threshold of an annual average $PM_{2.5}$ concentration greater than 0.3 $\mu g/m^3$. Figure 2 shows the Plan Area and contours lines of maximum annual $PM_{2.5}$ concentration from traffic on Stevens Creek Boulevard. The contour lines where the $PM_{2.5}$ concentrations are at the BAAQMD significant impact level of 0.3 $\mu g/m^3$ or higher are highlighted in the figure. For distances within about 130 feet from Stevens Creek Boulevard in the Plan Area, potentially significant $PM_{2.5}$ concentrations would occur.

The emission information, modeling results, and health risk calculations for the receptor with the maximum cancer risk from Stevens Creek Boulevard traffic are provided in *Attachment 4.*

North Wolfe Road

Since screening computations indicate increases in excess cancer risk at the project dwelling units closest to North Wolfe Road that would exceed significance thresholds, a refined analysis of the impacts of TACs and $PM_{2.5}$ to new sensitive receptors is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from North Wolfe Road. Refined modeling of local roadways predicts lower and more accurate results, because project specific information is used in the modeling. This includes roadway orientation with respect to receptors (i.e., where dwelling units

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

would be located with respect to traffic), emission estimates (i.e., based on traffic speeds and traffic mix), and meteorological conditions near the project.

The refined analysis of the impacts of TACs and $PM_{2.5}$ to new sensitive receptors is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from North Wolfe Road. This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on North Wolfe Road using the CARB EMFAC2014 emission factor model and local traffic volume of 40,810 ADT. The ADT was estimated from the cumulative plus project p.m. peak hour forecast, assuming that ADT is ten times the peak hour volume. DPM emissions are projected to decrease in the future and are reflected in the EMFAC2014 emissions data.

Residential occupation of the project was assumed to begin in 2029 or thereafter. In order to estimate TAC and $PM_{2.5}$ emissions over a 30-year exposure period (2029-2058) for calculating increased cancer risks to new residents from traffic on North Wolfe Road, the EMFAC2014 model was used to develop vehicle emission factors for the year 2029. Year 2029 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.

The EMFAC2014 model was used to develop vehicle emission factors for the year 2029 using an estimated mix of cars and trucks. North Wolfe Road carries primarily cars and light-duty trucks. A truck mix of 3.51 percent was assumed based on BAAQMD recommendations for truck percentages on non-highway roads in Santa Clara County.[23] One-third of the trucks were assumed to be heavy duty trucks and two-thirds were assumed to be medium duty trucks. Default EMFAC2014 vehicle model fleet age distributions for Santa Clara County were assumed in calculating the emissions and the traffic volumes were assumed to increase one percent per year. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[24] which were then applied to the project area traffic volumes to obtain estimated hourly traffic volumes and emissions. For all hours of the day, other than during the two-hour peak a.m. and p.m. periods, and average speed of 35 mph was assumed for all vehicles. Average travel speeds during peak a.m. and p.m. periods were assumed to be 20 mph.

Emissions of total organic gases (TOG) from gasoline-powered vehicles were calculated 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

[23] BAAQMD. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards.* may

[24] 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.

vehicles were calculated using EMFAC2014 default model values for Santa Clara County along with the traffic volumes and vehicle mixes.

$PM_{2.5}$ emissions for vehicles traveling on North Wolfe Road were modeled using the same basic modeling approach that was used for assessing TAC impacts. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear and from re-entrained roadway dust were included in these emissions. The assessment involved, first, calculating $PM_{2.5}$ emission rates from traffic traveling on the roadway. These emissions were calculated using the EMFAC2014 model and traffic volumes and were calculated in the same manner as discussed above. $PM_{2.5}$ re-entrained dust emissions from vehicles traffic were calculated using CARB emission calculation procedures.[25]

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the EPA AERMOD model. North- and south-bound traffic on North Wolfe Road within about 1,000 feet of the Plan Area were evaluated with the model. A five-year data set (2006-2010) of hourly meteorological data from the San Jose Airport was used for the modeling. Other inputs to the model included road geometry and elevations, hourly traffic emissions, and receptor locations and elevations. The modeling used grid of receptors spaced every 30 meters (98 feet) within the Plan Area adjacent to North Wolfe Road. Receptor heights of 1.5 meters (5 feet) were used to represent the breathing heights of potential future residents in the Plan Area.

Increased cancer risks were calculated using the modeled maximum annual DPM and TOG concentrations, and BAAQMD recommended risk assessment methods.[26] 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 increased cancer risks in the Plan Area from traffic on North Wolfe Road were calculated to be less than the BAAQMD significance threshold of an increased cancer risk of more than 10 in one million. The maximum infant cancer risk in the Plan Area from North Wolfe Road was 3.3 in one million. In general, cancer risks will decrease with distance from the roadway and with height of the receptors.

The maximum modeled annual DPM concentration was 0.003 $\mu g/m^3$. The maximum computed non-cancer HI based on this DPM concentration is 0.0006, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0

[25] CARB, 2014. *Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust*. Revised and updated, April 2014.

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

In addition to evaluating the cancer risks from TACs, potential $PM_{2.5}$ impacts from vehicle traffic were evaluated. Annual average $PM_{2.5}$ concentrations were computed at each receptor location. To evaluate potential non-cancer health effects due to $PM_{2.5}$, the BAAQMD adopted a significance threshold of an annual average $PM_{2.5}$ concentration greater than 0.3 $\mu g/m^3$. Figure 3 shows the Plan Area and contours lines of maximum annual $PM_{2.5}$ concentration from traffic on North Wolfe Road. The contour lines where the $PM_{2.5}$ concentrations are at the BAAQMD significant impact level of 0.3 $\mu g/m^3$ or higher are highlighted in the figure. For distances within about 95 feet from North Wolfe Road in the Plan Area west of North Wolfe Road and within about 215 feet in the Plan Area east of North Wolfe Road, potentially significant $PM_{2.5}$ concentrations would occur.

The emission information, modeling results, and health risk calculations for the receptor with the maximum cancer risk from North Wolfe Road traffic are provided in *Attachment 4*.

Screening Analysis of Roadways

For local roadways, BAAQMD has provided the *Roadway Screening Analysis Calculator* to assess whether roadways with traffic volumes of over 10,000 vehicles per day may have a potentially significant effect on a proposed project. Based on the project traffic study, Vallco Parkway would have a daily traffic volume of more than 10,000 vehicles.

Two adjustments were made to the cancer risk predictions made by this calculator: (1) adjustment for latest vehicle emissions rates and (2) adjustment of cancer risk to reflect new OEHHA guidance described above. The calculator uses EMFAC2011 emission rates for the year 2014. Overall, emission rates will decrease by the time the project is constructed and occupied. In addition, a new version of the emissions factor model, EMFAC2014 is available. This version predicts lower emission rates. An adjustment factor of 0.5 was developed by comparing emission rates of total organic gases (TOG) for running exhaust and running losses developed using EMFAC2011 for year 2014 and those from EMFAC2014 for year 2018 or later. The predicted cancer risk was then adjusted using a factor of 1.3744 to account for new OEHHA guidance.

The average daily traffic (ADT) on Vallco Parkway was estimated to be about 19,470 based on the project traffic study's cumulative plus project conditions, and assuming that ADT is approximately ten times peak hour volume. Using the BAAQMD *Roadway Screening Analysis Calculator* for Santa Clara County for east-west directional roadways and at a distance of 10 feet north of the roadway or greater, estimated cancer risk at the project site would be 8.6 per million and $PM_{2.5}$ concentration would be 0.25 $\mu g/m^3$, which would not exceed BAAQMD significance thresholds. Chronic or acute HI for the roadway would be below 0.03.

<u>Transit Hub</u>

The Proposed Project and alternatives would include a transit hub, promoting transit use and a shift to alternative modes of transportation. It is estimated that 15 buses would service the transit hub daily, though their fuel type it is unknown. Assuming that they could be diesel powered, this relatively small amount of daily buses accessing the transit hub would not be expected to pose a significant community risk impact to future residences.

Cumulative Operational Sources

Figure 4 shows the combined annual $PM_{2.5}$ concentrations across the project site for all three modeled roadways (I-280, Stevens Creek Boulevard and North Wolfe Road). Areas with potentially significant annual $PM_{2.5}$ concentrations are highlighted. Excess cancer risk from these combined sources would not exceed the 100 in one million significance threshold. Non-cancer health effects from these combined sources would not exceed the significance threshold of a Hazard Index greater than 10.0.

Summary

The Plan would allow growth of new residential land uses that would be sensitive receptors and new non-residential land uses that are a potential for new emissions sources. Typically, these new sources would be evaluated through the BAAQMD permit process or the CEQA process to identify and mitigate any significant exposures. Implementation of Mitigation Measure AQ-4 would reduce impacts related to the siting of receptors to a level of less than significant.

Mitigation Measure AQ-4 The following measures shall be utilized in site planning and building designs to reduce TAC and $PM_{2.5}$ exposure where new receptors are located within the setback distances identified above:

- Future development under the Plan that includes sensitive receptors (such as residences or daycare centers) located within the specified setback distances from highways and local roadways shall require site-specific analysis to quantify the level of TAC and $PM_{2.5}$ exposure. This analysis shall be conducted following procedures outlined by BAAQMD. If the site-specific analysis reveals significant exposures, such as cancer risk greater than 10 in one million acute or chronic hazards with a Hazard Index greater than 1.0, or annual $PM_{2.5}$ exposures greater than 0.3 $\mu g/m^3$, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a Hazard Index greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 $\mu g/m^3$, additional measures such as those detailed below shall be employed to reduce the risk to below the threshold. If this is not possible, the sensitive receptors shall be relocated.
- For significant cancer risk exposure, as defined by BAAQMD, indoor air filtration systems shall be installed to effectively reduce particulate levels to a less-than-significant level.

Project sponsors shall submit performance specifications and design details to demonstrate that lifetime residential exposures would result in less-than-significant cancer risks (less than 10 in one million chances or 100 in one million for cumulative sources), Hazard Index or $PM_{2.5}$ concentration. To reduce significant cancer risk exposure, future development shall implement the following measures:

- Air filtration systems installed shall be rated MERV-13 or higher and a maintenance plan for the air filtration system shall be implemented.
- Trees and/or vegetation shall be planted between sensitive receptors and pollution sources, if feasible. Trees that are best suited to trapping particulate matter shall be planted, including the following: Pine (Pinus nigra var. maritime), Cypress (X Cupressocyparis leylandii), Hybrid poplar (Populus deltoids X trichocarpa), and Redwoods (Sequoia sempervirens).
- Sites shall be designed to locate sensitive receptors as far as possible from any freeways, roadways, diesel generators, and distribution centers.
- Operable windows, balconies, and building air intakes shall be located as far away from TAC sources as feasible.
- Future developments that would include TAC sources would be evaluated through the CEQA process or BAAQMD permit process to ensure that they do not cause a significant health risk in terms of excess cancer risk greater than 10 in one million, acute or chronic hazards with a Hazard Index greater than 1.0, or annual $PM_{2.5}$ exposures greater than 0.3 $\mu g/m^3$, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a Hazard Index greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 $\mu g/m^3$.

Figure 1. Increased PM2.5 Concentrations (µg/m^3) from Interstate 280 Traffic

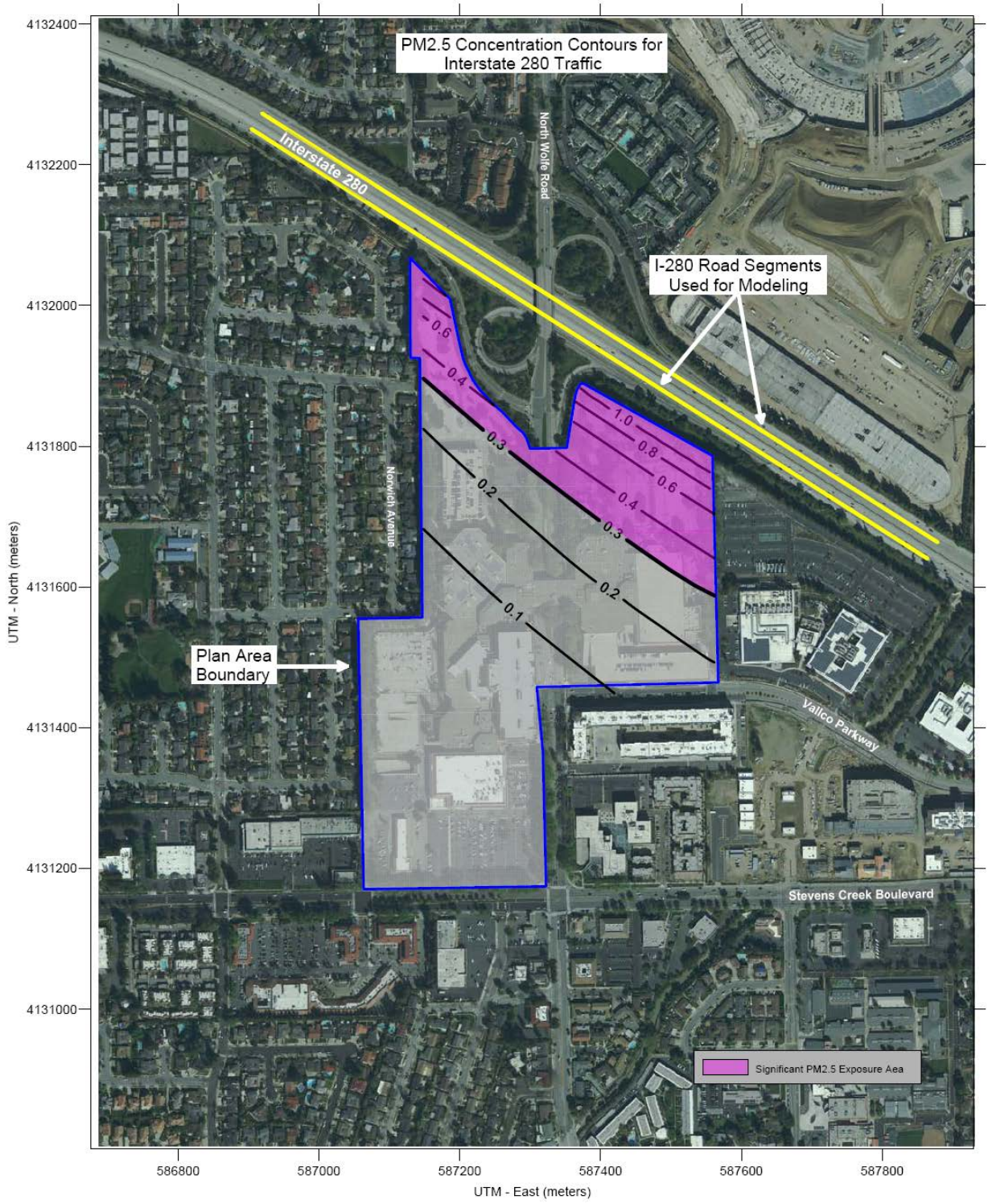


Figure 2. Increased PM2.5 Concentrations (µg/m^3) from Stevens Creek Blvd Traffic

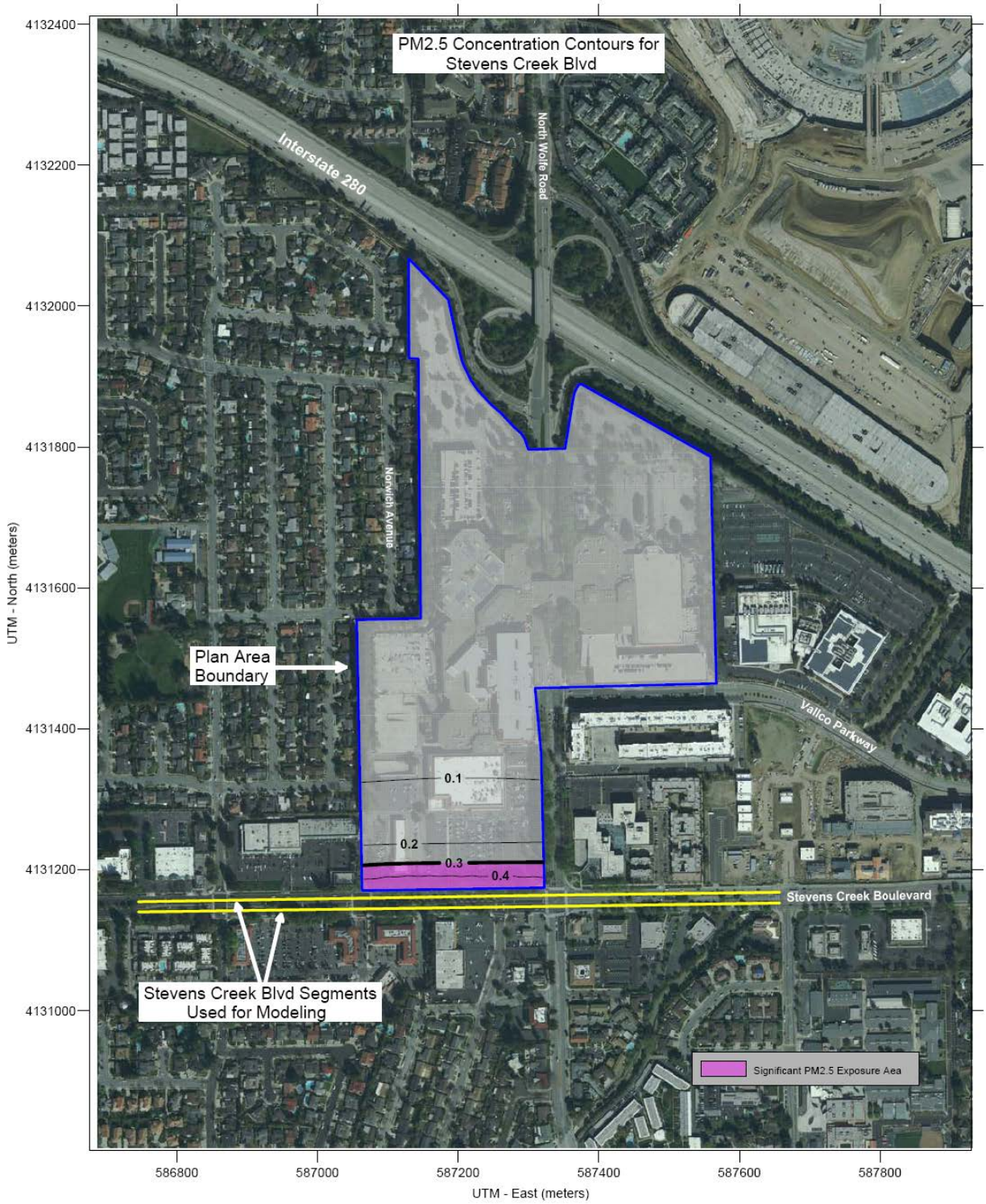


Figure 3. Increased PM2.5 Concentrations (µg/m^3) from North Wolfe Road Traffic

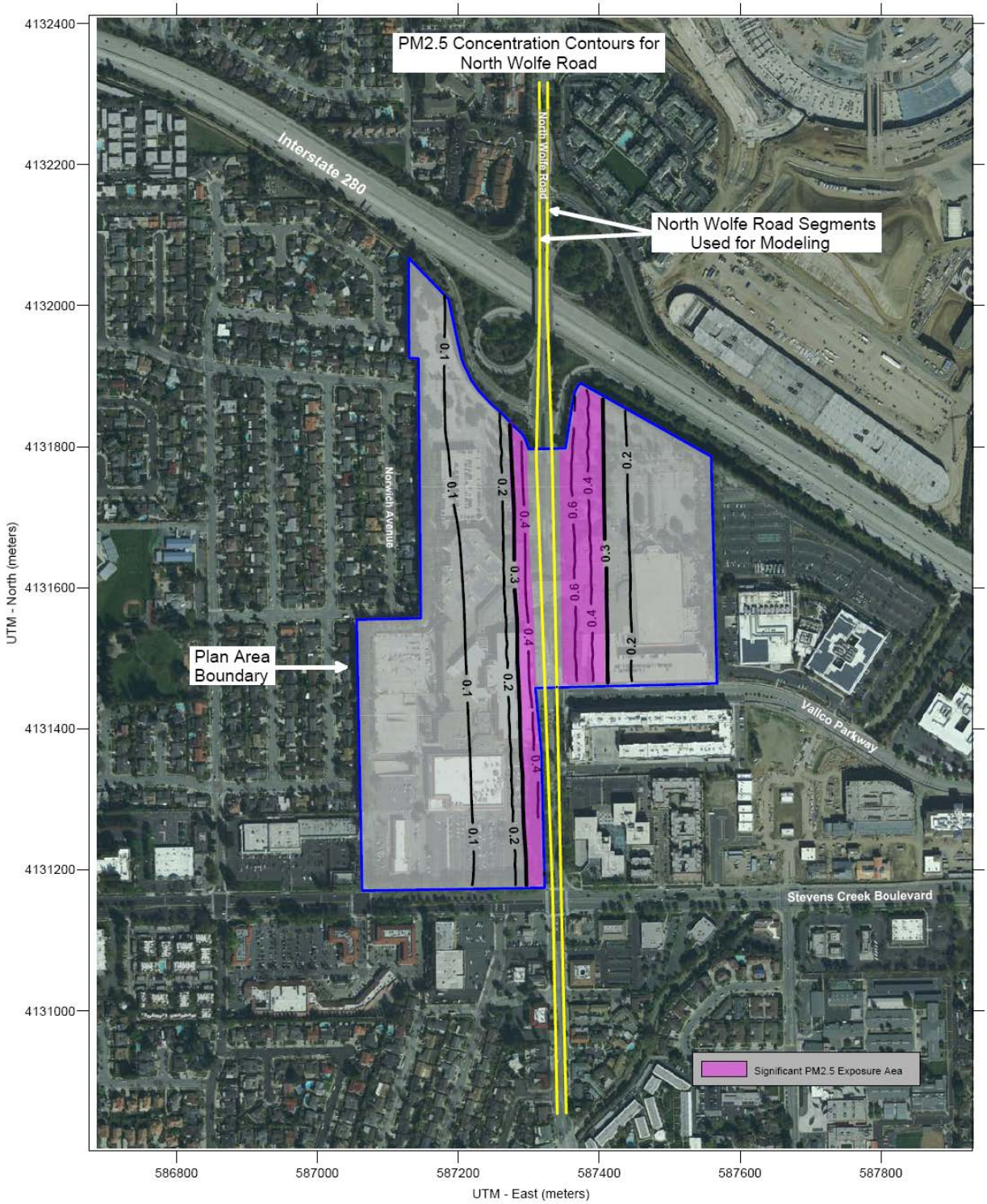
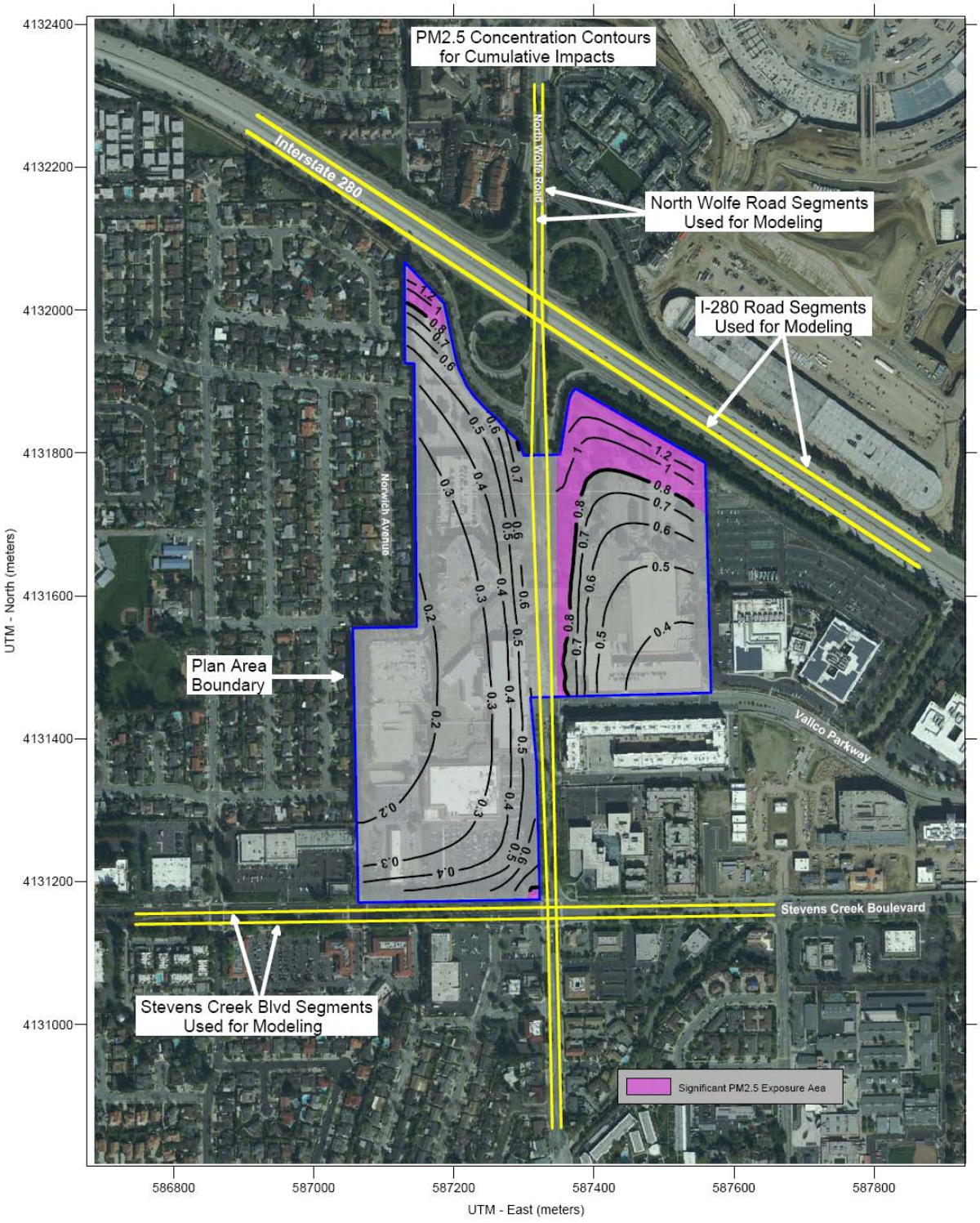


Figure 4. Combined Annual PM2.5 Concentrations from Nearby Roadways



Project Construction

Implementation of the Plan would result in the potential construction of a variety of projects. This construction would result in short-term emissions of DPM, a TAC. 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 employed to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-required best management practices*.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A community risk assessment of the project construction activities was conducted that evaluated potential health effects of sensitive receptors at these nearby residences from construction emissions of DPM and $PM_{2.5}$.[27] Emissions and dispersion modeling was conducted to estimate the on-site DPM concentrations resulting from project construction at locations shown in Figure 5, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction activity is anticipated to include demolition, grading and site preparation, building construction, and paving. Construction period emissions were modeled using the California Emissions Estimator Model, Version 2016.3.2 (CalEEMod). A build-out construction schedule was developed based on information provided by the City and CalEEMod defaults for a project of this type and size. It is anticipated that construction of the Proposed Project and alternatives would take approximately ten years from 2019 – 2028. In addition, approximately 2,000,000 cubic yards of soil export is anticipated and was entered into the model. Additionally, 2,170,350 sf of demolition is estimated and was entered.

<u>On-Site Construction TAC Emissions</u>

Construction period emissions were computed using CalEEMod along with projected construction activity, as described above. The CalEEMod model provided total annual PM_{10} 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 vehicles) of 1.228 tons (2,456 pounds) over the entire construction period. A trip length of one mile was used to represent vehicle travel while at or near the construction site. For modeling

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

purposes, it was assumed that these emissions from on-road vehicles would occur at the construction site. Fugitive dust $PM_{2.5}$ emissions were also computed and included in this analysis. The model estimates emissions of 2.205 tons (4,410 pounds) of fugitive $PM_{2.5}$ over the construction period. *Attachment 2* includes the CalEEMod input and output worksheets and risk modeling calculations.

Dispersion Modeling

The EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at existing sensitive receptors (residences) in the vicinity of the project construction site. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[28] 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 source. 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 source. 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. Figure 5 shows the project site and nearby sensitive receptor (residences) locations where health impacts were evaluated.

The modeling used a 5-year meteorological data set (2006-2010) from the Mineta San Jose International Airport meteorological station prepared for use with the AERMOD model by the BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2019 -2028 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at the future sensitive receptors. Receptor heights of 1.5 meters (4.9 feet) and 5.8 meters (19.0 feet) were used to represent the breathing heights of residents in nearby single family homes and for residences on the second floor level of buildings with first floor retail.

The maximum-modeled annual DPM and $PM_{2.5}$ concentrations occurred during the first year of construction at the second floor level of the mixed-use retail/residential building at the corner of Vallco Parkway and North Wolfe Road, as shown in Figure 5.

Cancer Risks

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

Results of this assessment indicate that the maximum excess residential cancer risks would be 26.7 in one million for an infant/child exposure and 0.9 in one million for an adult exposure. The maximally exposed individual (MEI) would be located at a second floor residence at the location shown in Figure 5. The maximum residential excess cancer risk at the MEI would be greater than the BAAQMD significance threshold of 10 in one million. *Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this risk to below the BAAQMD threshold of significance.*

Predicted Annual $PM_{2.5}$ Concentration

The maximum-modeled annual $PM_{2.5}$ concentration, which is based on combined exhaust and fugitive dust emissions, was 0.25 $\mu g/m^3$ and would occur at the same location as the cancer risk MEI. The maximum annual $PM_{2.5}$ concentration would not exceed the BAAQMD significance threshold of 0.3 $\mu g/m^3$.

Non-Cancer Hazards

The maximum computed HI based on the maximum DPM concentration would be 0.01, which is much lower than the BAAQMD significance threshold of 1.0.

Details of the construction emission calculations, modeling information, and health risk calculations are contained in *Attachment 5*.

Project Alternatives

Community risk impacts from construction of the project alternatives would be similar to the Proposed Project. For the Maximum Residential Alternative and the Retail and Residential Alternative, maximum excess residential cancer risks would be 26.8 in one million for an infant/child exposure. *Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this risk to below the BAAQMD threshold of significance.*

Combined Construction Risk Assessment

As discussed above, the project site is affected by a couple sources of TACs. Table 9 shows the cancer risk associated with each source affecting the construction MEI. There are two construction projects which could occur as the same time as the proposed project (the I-280/Wolfe Road interchange improvement project and the Hamptons Apartment project), however both of these projects would be beyond 1,000 feet from the project construction MEI. The sum of impacts from combined sources (i.e., sources within 1,000 feet of the project) would not exceed the combined thresholds for community risk.

TABLE 9 Combined Community Risk Assessment at Construction MEI

Source	Maximum Cancer Risk (per million)	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)	Maximum Hazard Index
Project Construction	26.7	0.25	0.01
Stevens Creek Boulevard	0.4	0.06	<0.01
North Wolfe Road	1.8	0.28	<0.01
Vallco Parkway	7.1	0.21	<0.03
I-280[1]	--	--	--
Apple Inc, Plant 18440 10500 Ridgeview Court[1]	--	--	--
Apple Inc, Plant 18604 19333 Vallco Parkway	0.1	0.00	<0.01
Conoco Phillips #2611220, Plant G9315 19550 Stevens Creek Boulevard[1]	--	--	--
Combined Total	36.1	0.80	<0.07
BAAQMD Threshold – Combined Sources	***>100***	***>0.8***	***>10.0***
Exceeds Threshold After Mitigation?	***No***	***No***	***No***

Note: [1]This source is over 1,000 feet from the construction MEI.

Effectiveness of Mitigation

Implementation of *Mitigation Measure AQ-1* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure AQ-2* would further reduce on-site diesel exhaust emissions by at least 65 percent, which would reduce the cancer risk to below 10.0 per million. A mitigation scenario with Tier 4 interim construction equipment indicates that the computed maximum increased cancer risk for construction would be 3.1 in one million or less. The cancer risk would be below the BAAQMD threshold of greater than 10 per one million for cancer risk. Therefore, *after implementation of these recommended measures, the project and its alternatives would have a less-than-significant impact with respect to community risk caused by construction activities.*

Figure 5. Project Construction Site and Locations of Sensitive Receptors and Maximum TAC and $PM_{2.5}$ Impacts

Impact 5: Create objectionable odors affecting a substantial number of people?

Subsequent land use activities associated with implementation of the Plan could allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of future development. Additionally, subsequent land use activities may allow for the construction of sensitive land uses (i.e., residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions. Future construction activities could result in odorous emissions from diesel exhaust associated with construction equipment. However, because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited.

Significant sources of offending odors are typically identified based on complaint histories received and compiled by BAAQMD. It is difficult to identify sources of odors without requesting information by specific facility from BAAQMD. Typical large sources of odors that result in complaints are wastewater treatment facilities, landfills including composting operations, food processing facilities, and chemical plants. Other sources, such as restaurants, paint or body shops, and coffee roasters typically result in localized sources of odors. Table 10 identifies screening buffers included in the BAAQMD CEQA Air Quality Guidelines that could apply to the Plan Area.

TABLE 10 Odor Screening Distances for the Plan

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Green Waste and Recycling Operations	1 mile

According to the BAAQMD CEQA Guidelines, an odor source with five or more confirmed complaints per year averaged over three years is considered to have a significant impact. Future construction activities in the Plan area could result in odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited.

Subsequent land use activities associated with implementation of the Plan could allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of future development. Additionally, subsequent land use activities may allow for the construction of sensitive land uses (i.e., residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions. However, significant sources of odors are not proposed as part of the Plan.

Impact 6: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The BAAQMD CEQA Air Quality Guidelines contain methodology and thresholds of significance for evaluating GHG emissions from land use type projects. As discussed above, a 2030 project-level GHG emission efficiency metric of 2.6 MT of CO_2e per service population (S.P.) per year was developed. GHG emissions resulting from operation of the Plan have been compared to an efficiency metric threshold consistent with State goals detailed in EO B-30-15, SB 32, and EO-S-3-05 to reduce GHG emissions by 40 percent below 1990 levels by 2030. This is calculated for 2030 based on the statewide GHG reduction, taking into account the 1990 inventory and the projected 2030 statewide population and employment levels.

GHG emissions were computed for the project and the full build-out traffic scenario using the California Emissions Estimator Model Version 2016.3.2 (CalEEMod). Proposed land uses and size were input to CalEEMod. CalEEMod predicts emissions of GHG in the form of equivalent carbon dioxide emissions or CO_2e.

Construction Period Emissions

Table 11 below summarizes the GHG emissions associated with construction of the proposed project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative. These emissions are from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. The Occupied/Re-Tenanted Mall Alternative would not result in the construction of new buildings. This alternative, however, would likely result in exterior and interior tenant improvements. It is estimated that the exterior and interior tenant improvements would result in construction-related GHG emissions but the amount of emissions

would be less than the amount of emissions estimated for the construction of the project. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emission.

TABLE 11. Summary of Project/Project Alternative Construction-Related GHG Emissions

Modeled Scenario	Estimated GHG Emissions (metric tons)
Proposed Project	77,467
General Plan Buildout with Maximum Residential Alternative	82,593
Retail and Residential Alternative	75,124

BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable, including, but not limited to: using alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet, using local building materials of at least 10 percent, and recycling or reusing at least 50 percent of construction waste or demolition materials.

Operational Period Emissions

The CalEEMod model was used to predict GHG emissions associated with operation of fully developed sites under the Plan, as described above. Adjustments to the modeling are described below. CalEEMod output worksheets are provided in *Attachment 2*.

Electricity Generation

Default rates for energy consumption were assumed in the model. CalEEMod 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. Emissions rates associated with electricity consumption were adjusted to account for the proposed use of Silicon Valley Clean Energy's 100 percent carbon-free electricity. Default model assumptions for GHG emissions associated with area sources, solid waste generation and water/wastewater use were applied. The model includes the 2016 Title 24 Building Standards. Default rates for energy consumption were assumed in the model.

Service Population Rate

The service population rate for the Plan is the annual GHG emissions expressed in metric tons divided by the estimated number of new residents and employees. The estimated 2029 service

population for the Proposed Project is 11,194. For the Occupied/Re-Tenanted Mall Alternative, the estimated service population is 2,550. For the Maximum Residential Alternative, the estimated service population is 10,874. For the Retail and Residential Alternative, the estimated service population is 9,400.

GHG Operational Emissions

Table 12 presents the results of the CalEEMod model analysis in terms of annual metric tons of equivalent CO_2e emissions (MT of CO_2e/yr) and service population values. The CalEEMod modeling data are provided in *Attachment 2*.

As shown in Table 12, 2029 full build-out operation of the Proposed Project would have annual service population emissions of 4.9 MT of CO_2e/yr/S.P., which would exceed the 2030 Substantial Progress threshold of 2.6 MT of CO_2e/year/S.P. As shown in Table 12, all of the project alternatives would also exceed the threshold. This impact is, therefore, considered potentially significant. Implementation of Mitigation AQ-5 would reduce this impact to a level of less than significant level by offseting and/or minimizing project GHG emission to below the substantial progress threshold.

TABLE 12 2029 GHG Emissions (MT of CO_2e)

Source Category	Existing	Occupied/ Re-Tenanted Mall	Proposed Project	Max. Residential	Retail and Residential
Area	<1	<1	10[1]	33[1]	50[1]
Energy Consumption	38	665	3,442	3,417	3,102
Mobile	4,803[2]	12,496[2]	31,901[2]	30,059[2]	16,752[2]
Solid Waste Generation	157	679	1,696	1,654	1,336
Water Usage	30	127	641	562	427
Total	5,028	13,967	37,690	35,725	21,667
Efficiency Metric		5.5[2]	3.4[3]	3.3[4]	2.3[5]
2030 Substantial Progress Threshold	2.6 MT CO_2e/year/S.P.				

Notes: [1]Includes no residential hearths. [2]Includes the VMT adjustment factors.

[2]Based on a Occupied/Re-Tenanted Mall Alternative service population of 2,550, [3]Based on a Proposed Project service population of 11,194, [4]Based on a Max. Residential service population of 10,874, [5]Based on a Retail and Residential service population of 9,400.

S.P. = service population

Mitigation Measure AQ-5: **Develop and Implement Greenhouse Gas Reduction Plan**

The project proponent shall prepare and implement a GHG Reduction Plan to offset the project/project alternative-related incremental increase of greenhouse gas emissions

resulting in the exceedance of the Substantial Progress threshold of 2.6 MT of CO2e/year/service population. Refinement of the estimated GHG emissions from the project (or project alternative) shall be completed as part of the GHG Reduction Plan in order to reflect the most current and accurate data available regarding the project's estimated emissions (including emission rates). The GHG Reduction Plan shall require the development and implementation of a Transportation Demand Management (TDM) program to reduce mobile GHG emissions. Additional offsets may include, but would not be limited to, the following:

- Construct onsite or fund off-site carbon sequestration projects (such as a forestry or wetlands projects for which inventory and reporting protocols have been adopted). If the project develops an off-site project, it must be registered with the Climate Action Reserve or otherwise approved by the BAAQMD in order to be used to offset Project emissions;

- Purchase of carbon credits to offset Project annual emissions. Carbon offset credits must be verified and registered with The Climate Registry, the Climate Action Reserve, or another source approved by the California Air Resources Board or BAAQMD. The preference for offset carbon credit purchases include those that can be achieved as follows: 1) within the City; 2) within the San Francisco Bay Area Air Basin; 3) within the State of California; then 4) elsewhere in the United States. Provisions of evidence of payments, and funding of an escrow-type account or endowment fund would be overseen by the City;

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[1] 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.[2] This HRA used the recent 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.[3] 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 of exposure, and the exposure duration. 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

[1] 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.

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

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

as liters per kilogram of body weight per day (L/kg-day). As recommended by the BAAQMD, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. 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).

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)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

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

Parameter	*Exposure Type* →	Infant		Child		Adult
	Age Range →	3rd Trimester	0<2	2 < 9	2 < 16	16 - 30
DPM Cancer Potency Factor (mg/kg-day)$^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day)*		361	1,090	631	572	261
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		0.85-1.0	0.85-1.0	0.72-1.0	0.72-1.0	0.73

* 95th percentile breathing rates for 3rd trimester and infants and 80th percentile for children and adults

Non-Cancer Hazards

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

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

Annual $PM_{2.5}$ Concentrations

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

nearby local roadways, the $PM_{2.5}$ impacts should include those from vehicle exhaust emissions, $PM_{2.5}$ generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: CalEEMod Input and Output Worksheets

Vallco, Cupertino - Existing

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	715.09	1000sqft	0.00	715,090.00	0
Regional Shopping Center	296.72	1000sqft	58.00	296,716.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free electricity

Land Use - 58 acres

Construction Phase -

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip rates from project traffic report

Woodstoves -

Energy Use -

Construction Off-road Equipment Mitigation - Tier 2 engines and BAAQMD BMPs

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	296,720.00	296,716.00
tblLandUse	LotAcreage	16.42	0.00
tblLandUse	LotAcreage	6.81	58.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	49.97	34.98
tblVehicleTrips	SU_TR	25.24	17.67
tblVehicleTrips	WD_TR	42.70	29.70

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	1.3755	8.0000e-005	9.2700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Energy	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5263	37.5263	7.2000e-004	6.9000e-004	37.7493
Mobile	1.2179	5.0543	12.5324	0.0502	5.5577	0.0360	5.5937	1.4874	0.0335	1.5208	0.0000	4,614.7806	4,614.7806	0.1408	0.0000	4,618.3004
Waste						0.0000	0.0000		0.0000	0.0000	63.2439	0.0000	63.2439	3.7376	0.0000	156.6840
Water						0.0000	0.0000		0.0000	0.0000	6.9729	0.0000	6.9729	0.7162	0.0169	29.9167

Total	**2.5973**	**5.0888**	**12.5706**	**0.0504**	**5.5577**	**0.0387**	**5.5964**	**1.4874**	**0.0361**	**1.5235**	**70.2167**	**4,652.3250**	**4,722.5417**	**4.5954**	**0.0176**	**4,842.6697**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3755	8.0000e-005	9.2700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Energy	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5263	37.5263	7.2000e-004	6.9000e-004	37.7493
Mobile	1.2179	5.0543	12.5324	0.0502	5.5577	0.0360	5.5937	1.4874	0.0335	1.5208	0.0000	4,614.7806	4,614.7806	0.1408	0.0000	4,618.3004
Waste						0.0000	0.0000		0.0000	0.0000	63.2439	0.0000	63.2439	3.7376	0.0000	156.6840
Water						0.0000	0.0000		0.0000	0.0000	6.9729	0.0000	6.9729	0.7162	0.0169	29.9167
Total	**2.5973**	**5.0888**	**12.5706**	**0.0504**	**5.5577**	**0.0387**	**5.5964**	**1.4874**	**0.0361**	**1.5235**	**70.2167**	**4,652.3250**	**4,722.5417**	**4.5954**	**0.0176**	**4,842.6697**

	ROG	NOx	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	1.2179	5.0543	12.5324	0.0502	5.5577	0.0360	5.5937	1.4874	0.0335	1.5208	0.0000	4,614.7806	4,614.7806	0.1408	0.0000	4,618.3004
Unmitigated	1.2179	5.0543	12.5324	0.0502	5.5577	0.0360	5.5937	1.4874	0.0335	1.5208	0.0000	4,614.7806	4,614.7806	0.1408	0.0000	4,618.3004

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Regional Shopping Center	8,812.58	10,379.27	5243.04	14,949,485	14,949,485
Total	8,812.58	10,379.27	5,243.04	14,949,485	14,949,485

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5263	37.5263	7.2000e-004	6.9000e-004	37.7493
NaturalGas Unmitigated	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5263	37.5263	7.2000e-004	6.9000e-004	37.7493

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	703217	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5263	37.5263	7.2000e-004	6.9000e-004	37.7493
Total		**3.7900e-003**	**0.0345**	**0.0290**	**2.1000e-004**		**2.6200e-003**	**2.6200e-003**		**2.6200e-003**	**2.6200e-003**	**0.0000**	**37.5263**	**37.5263**	**7.2000e-004**	**6.9000e-004**	**37.7493**

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					

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	703217	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5263	37.5263	7.2000e-004	6.9000e-004	37.7493
Total		**3.7900e-003**	**0.0345**	**0.0290**	**2.1000e-004**		**2.6200e-003**	**2.6200e-003**		**2.6200e-003**	**2.6200e-003**	**0.0000**	**37.5263**	**37.5263**	**7.2000e-004**	**6.9000e-004**	**37.7493**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	4.19043e+006	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.17189e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	4.19043e+006	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.17189e+006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3755	8.0000e-005	9.2700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Unmitigated	1.3755	8.0000e-005	9.2700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193

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	0.1696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.5000e-004	8.0000e-005	9.2700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Total	**1.3755**	**8.0000e-005**	**9.2700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0181**	**0.0181**	**5.0000e-005**	**0.0000**	**0.0193**

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	0.1696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.5000e-004	8.0000e-005	9.2700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Total	**1.3755**	**8.0000e-005**	**9.2700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0181**	**0.0181**	**5.0000e-005**	**0.0000**	**0.0193**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.9729	0.7162	0.0169	29.9167
Unmitigated	6.9729	0.7162	0.0169	29.9167

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	21.9788 / 13.4709	6.9729	0.7162	0.0169	29.9167
Total		**6.9729**	**0.7162**	**0.0169**	**29.9167**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	21.9788 / 13.4709	6.9729	0.7162	0.0169	29.9167
Total		**6.9729**	**0.7162**	**0.0169**	**29.9167**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	63.2439	3.7376	0.0000	156.6840
Unmitigated	63.2439	3.7376	0.0000	156.6840

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	311.56	63.2439	3.7376	0.0000	156.6840
Total		**63.2439**	**3.7376**	**0.0000**	**156.6840**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	311.56	63.2439	3.7376	0.0000	156.6840
Total		**63.2439**	**3.7376**	**0.0000**	**156.6840**

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

Vallco, Cupertino - No Project

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	5,026.00	Space	0.00	2,010,400.00	0
Hotel	148.00	Room	0.00	214,896.00	0
Regional Shopping Center	1,208.00	1000sqft	58.00	1,208,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free electricity

Land Use - 58 acres

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip rates from traffic report including transit reduction

Energy Use -

Construction Off-road Equipment Mitigation - Tier 2 engines and BAAQMD BMPs

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblGrading	AcresOfGrading	455.00	275.00
tblLandUse	LotAcreage	45.23	0.00
tblLandUse	LotAcreage	4.93	0.00
tblLandUse	LotAcreage	27.73	58.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	8.19	7.78
tblVehicleTrips	ST_TR	49.97	29.98
tblVehicleTrips	SU_TR	5.95	5.65
tblVehicleTrips	SU_TR	25.24	15.14
tblVehicleTrips	WD_TR	8.17	7.76
tblVehicleTrips	WD_TR	42.70	25.73

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					
2019	0.5310	5.5540	3.2405	5.8200e-003	1.0275	0.2732	1.3006	0.4954	0.2525	0.7479	0.0000	521.4325	521.4325	0.1519	0.0000	525.2299
2020	0.8725	8.9894	6.5479	0.0227	1.4875	0.2402	1.7277	0.4885	0.2233	0.7117	0.0000	2,090.5345	2,090.5345	0.2110	0.0000	2,095.8093
2021	1.0188	10.1925	8.1164	0.0359	1.8506	0.1504	2.0011	0.5034	0.1416	0.6449	0.0000	3,337.2302	3,337.2302	0.1816	0.0000	3,341.7703
2022	0.9383	9.4681	7.6236	0.0351	1.8436	0.1281	1.9716	0.5015	0.1205	0.6220	0.0000	3,265.4665	3,265.4665	0.1741	0.0000	3,269.8178
2023	0.8346	7.5536	7.1274	0.0341	1.8436	0.1055	1.9491	0.5015	0.0992	0.6006	0.0000	3,170.9125	3,170.9125	0.1595	0.0000	3,174.8991
2024	0.7950	7.3912	6.8699	0.0337	1.8578	0.0947	1.9525	0.5053	0.0890	0.5944	0.0000	3,141.6971	3,141.6971	0.1568	0.0000	3,145.6181
2025	0.7503	7.1403	6.5625	0.0330	1.8507	0.0830	1.9337	0.5034	0.0780	0.5814	0.0000	3,077.2288	3,077.2288	0.1528	0.0000	3,081.0481
2026	0.7264	7.0501	6.3398	0.0325	1.8508	0.0826	1.9334	0.5034	0.0777	0.5811	0.0000	3,030.7010	3,030.7010	0.1501	0.0000	3,034.4542
2027	0.6838	6.7595	5.9980	0.0310	1.7875	0.0812	1.8687	0.4862	0.0763	0.5625	0.0000	2,895.1780	2,895.1780	0.1455	0.0000	2,898.8160
2028	7.9424	0.6135	1.2462	2.5800e-003	0.1433	0.0294	0.1727	0.0381	0.0273	0.0654	0.0000	229.0721	229.0721	0.0414	0.0000	230.1078
Maximum	**7.9424**	**10.1925**	**8.1164**	**0.0359**	**1.8578**	**0.2732**	**2.0011**	**0.5053**	**0.2525**	**0.7479**	**0.0000**	**3,337.2302**	**3,337.2302**	**0.2110**	**0.0000**	**3,341.7703**

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					
2019	0.5310	5.5540	3.2405	5.8200e-003	0.2448	0.2732	0.5179	0.1151	0.2525	0.3676	0.0000	521.4319	521.4319	0.1519	0.0000	525.2293
2020	0.8725	8.9894	6.5479	0.0227	1.0735	0.2402	1.3136	0.3108	0.2233	0.5341	0.0000	2,090.5339	2,090.5339	0.2110	0.0000	2,095.8087
2021	1.0188	10.1925	8.1164	0.0359	1.8506	0.1504	2.0011	0.5034	0.1416	0.6449	0.0000	3,337.2298	3,337.2298	0.1816	0.0000	3,341.7699

2022	0.9383	9.4681	7.6236	0.0351	1.8436	0.1281	1.9716	0.5015	0.1205	0.6220	0.0000	3,265.4662	3,265.4662	0.1741	0.0000	3,269.8175
2023	0.8346	7.5536	7.1274	0.0341	1.8436	0.1055	1.9491	0.5015	0.0992	0.6006	0.0000	3,170.9122	3,170.9122	0.1595	0.0000	3,174.8988
2024	0.7950	7.3912	6.8699	0.0337	1.8578	0.0947	1.9525	0.5053	0.0890	0.5944	0.0000	3,141.6967	3,141.6967	0.1568	0.0000	3,145.6177
2025	0.7503	7.1403	6.5625	0.0330	1.8507	0.0830	1.9337	0.5034	0.0780	0.5814	0.0000	3,077.2285	3,077.2285	0.1528	0.0000	3,081.0477
2026	0.7264	7.0501	6.3398	0.0325	1.8508	0.0826	1.9334	0.5034	0.0777	0.5811	0.0000	3,030.7006	3,030.7006	0.1501	0.0000	3,034.4538
2027	0.6838	6.7595	5.9980	0.0310	1.7875	0.0812	1.8687	0.4862	0.0763	0.5625	0.0000	2,895.1777	2,895.1777	0.1455	0.0000	2,898.8156
2028	7.9424	0.6135	1.2462	2.5800e-003	0.1433	0.0294	0.1727	0.0381	0.0273	0.0654	0.0000	229.0719	229.0719	0.0414	0.0000	230.1076
Maximum	**7.9424**	**10.1925**	**8.1164**	**0.0359**	**1.8578**	**0.2732**	**2.0011**	**0.5053**	**0.2525**	**0.6449**	**0.0000**	**3,337.2298**	**3,337.2298**	**0.2110**	**0.0000**	**3,341.7699**

	ROG	NOx	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**	**7.70**	**0.00**	**7.12**	**12.33**	**0.00**	**9.77**	**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	**1-1-2019**	**3-31-2019**	1.2665	1.2665
2	**4-1-2019**	**6-30-2019**	1.2802	1.2802
3	**7-1-2019**	**9-30-2019**	1.6397	1.6397
4	**10-1-2019**	**12-31-2019**	1.8948	1.8948
5	**1-1-2020**	**3-31-2020**	1.7801	1.7801
6	**4-1-2020**	**6-30-2020**	1.7938	1.7938
7	**7-1-2020**	**9-30-2020**	3.0957	3.0957
8	**10-1-2020**	**12-31-2020**	3.1536	3.1536
9	**1-1-2021**	**3-31-2021**	2.7832	2.7832
10	**4-1-2021**	**6-30-2021**	2.7669	2.7669
11	**7-1-2021**	**9-30-2021**	2.7973	2.7973
12	**10-1-2021**	**12-31-2021**	2.8451	2.8451
13	**1-1-2022**	**3-31-2022**	2.5926	2.5926
14	**4-1-2022**	**6-30-2022**	2.5793	2.5793

15	**7-1-2022**	**9-30-2022**	2.6076	2.6076
16	**10-1-2022**	**12-31-2022**	2.6503	2.6503
17	**1-1-2023**	**3-31-2023**	2.0923	2.0923
18	**4-1-2023**	**6-30-2023**	2.0828	2.0828
19	**7-1-2023**	**9-30-2023**	2.1057	2.1057
20	**10-1-2023**	**12-31-2023**	2.1388	2.1388
21	**1-1-2024**	**3-31-2024**	2.0482	2.0482
22	**4-1-2024**	**6-30-2024**	2.0173	2.0173
23	**7-1-2024**	**9-30-2024**	2.0395	2.0395
24	**10-1-2024**	**12-31-2024**	2.0707	2.0707
25	**1-1-2025**	**3-31-2025**	1.9594	1.9594
26	**4-1-2025**	**6-30-2025**	1.9520	1.9520
27	**7-1-2025**	**9-30-2025**	1.9735	1.9735
28	**10-1-2025**	**12-31-2025**	2.0030	2.0030
29	**1-1-2026**	**3-31-2026**	1.9305	1.9305
30	**4-1-2026**	**6-30-2026**	1.9242	1.9242
31	**7-1-2026**	**9-30-2026**	1.9453	1.9453
32	**10-1-2026**	**12-31-2026**	1.9734	1.9734
33	**1-1-2027**	**3-31-2027**	1.9020	1.9020
34	**4-1-2027**	**6-30-2027**	1.8968	1.8968
35	**7-1-2027**	**9-30-2027**	1.9177	1.9177
36	**10-1-2027**	**12-31-2027**	1.7493	1.7493
37	**1-1-2028**	**3-31-2028**	0.3104	0.3104
38	**4-1-2028**	**6-30-2028**	0.7548	0.7548
39	**7-1-2028**	**9-30-2028**	4.0326	4.0326
		Highest	4.0326	4.0326

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.4763	5.3000e-004	0.0585	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.1140	0.1140	3.0000e-004	0.0000	0.1215
Energy	0.0668	0.6071	0.5100	3.6400e-003		0.0461	0.0461		0.0461	0.0461	0.0000	660.9109	660.9109	0.0127	0.0121	664.8383
Mobile	4.4452	18.4502	45.7951	0.1834	20.3266	0.1316	20.4582	5.4398	0.1223	5.5621	0.0000	16,873.0183	16,873.0183	0.5145	0.0000	16,885.8806
Waste						0.0000	0.0000		0.0000	0.0000	273.9221	0.0000	273.9221	16.1883	0.0000	678.6304
Water						0.0000	0.0000		0.0000	0.0000	29.5788	0.0000	29.5788	3.0380	0.0717	126.9064
Total	**10.9883**	**19.0579**	**46.3636**	**0.1870**	**20.3266**	**0.1779**	**20.5045**	**5.4398**	**0.1686**	**5.6084**	**303.5009**	**17,534.0432**	**17,837.5441**	**19.7538**	**0.0839**	**18,356.3771**

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	6.4763	5.3000e-004	0.0585	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.1140	0.1140	3.0000e-004	0.0000	0.1215
Energy	0.0668	0.6071	0.5100	3.6400e-003		0.0461	0.0461		0.0461	0.0461	0.0000	660.9109	660.9109	0.0127	0.0121	664.8383
Mobile	4.4452	18.4502	45.7951	0.1834	20.3266	0.1316	20.4582	5.4398	0.1223	5.5621	0.0000	16,873.0183	16,873.0183	0.5145	0.0000	16,885.8806
Waste						0.0000	0.0000		0.0000	0.0000	273.9221	0.0000	273.9221	16.1883	0.0000	678.6304
Water						0.0000	0.0000		0.0000	0.0000	29.5788	0.0000	29.5788	3.0380	0.0717	126.9064
Total	**10.9883**	**19.0579**	**46.3636**	**0.1870**	**20.3266**	**0.1779**	**20.5045**	**5.4398**	**0.1686**	**5.6084**	**303.5009**	**17,534.0432**	**17,837.5441**	**19.7538**	**0.0839**	**18,356.3771**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,134,344; Non-Residential Outdoor: 711,448; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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	0.00	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	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,321.00	563.00	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	264.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**0.0000**	**0.1167**	**0.1167**	**0.0000**	**0.1085**	**0.1085**	**0.0000**	**225.0711**	**225.0711**	**0.0626**	**0.0000**	**226.6365**

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	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**3.5400e-003**	**2.6400e-003**	**0.0272**	**8.0000e-005**	**7.7300e-003**	**5.0000e-005**	**7.7800e-003**	**2.0600e-003**	**5.0000e-005**	**2.1000e-003**	**0.0000**	**6.8453**	**6.8453**	**1.9000e-004**	**0.0000**	**6.8500**

Mitigated Construction On-Site

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

Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**0.0000**	**0.1167**	**0.1167**	**0.0000**	**0.1085**	**0.1085**	**0.0000**	**225.0709**	**225.0709**	**0.0626**	**0.0000**	**226.6362**

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	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**3.5400e-003**	**2.6400e-003**	**0.0272**	**8.0000e-005**	**7.7300e-003**	**5.0000e-005**	**7.7800e-003**	**2.0600e-003**	**5.0000e-005**	**2.1000e-003**	**0.0000**	**6.8453**	**6.8453**	**1.9000e-004**	**0.0000**	**6.8500**

3.3 Site Preparation - 2019

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					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.7046**	**0.0932**	**0.7978**	**0.3873**	**0.0858**	**0.4731**	**0.0000**	**133.2579**	**133.2579**	**0.0422**	**0.0000**	**134.3119**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.1585**	**0.0932**	**0.2518**	**0.0871**	**0.0858**	**0.1729**	**0.0000**	**133.2577**	**133.2577**	**0.0422**	**0.0000**	**134.3118**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

3.4 Grading - 2019

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					0.3054	0.0000	0.3054	0.1035	0.0000	0.1035	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.3054**	**0.0631**	**0.3685**	**0.1035**	**0.0581**	**0.1616**	**0.0000**	**147.6085**	**147.6085**	**0.0467**	**0.0000**	**148.7760**

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	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**1.9300e-003**	**1.4300e-003**	**0.0148**	**4.0000e-005**	**4.2000e-003**	**3.0000e-005**	**4.2300e-003**	**1.1200e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7210**	**3.7210**	**1.0000e-004**	**0.0000**	**3.7236**

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					0.0687	0.0000	0.0687	0.0233	0.0000	0.0233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.0687**	**0.0631**	**0.1319**	**0.0233**	**0.0581**	**0.0814**	**0.0000**	**147.6083**	**147.6083**	**0.0467**	**0.0000**	**148.7759**

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	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**1.9300e-003**	**1.4300e-003**	**0.0148**	**4.0000e-005**	**4.2000e-003**	**3.0000e-005**	**4.2300e-003**	**1.1200e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7210**	**3.7210**	**1.0000e-004**	**0.0000**	**3.7236**

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					0.5342	0.0000	0.5342	0.2293	0.0000	0.2293	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.5342**	**0.1402**	**0.6745**	**0.2293**	**0.1290**	**0.3583**	**0.0000**	**351.4237**	**351.4237**	**0.1137**	**0.0000**	**354.2651**

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	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**4.2800e-003**	**3.0800e-003**	**0.0323**	**1.0000e-004**	**0.0102**	**7.0000e-005**	**0.0103**	**2.7200e-003**	**6.0000e-005**	**2.7800e-003**	**0.0000**	**8.7739**	**8.7739**	**2.2000e-004**	**0.0000**	**8.7793**

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					0.1202	0.0000	0.1202	0.0516	0.0000	0.0516	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.1202**	**0.1402**	**0.2604**	**0.0516**	**0.1290**	**0.1806**	**0.0000**	**351.4233**	**351.4233**	**0.1137**	**0.0000**	**354.2647**

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	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**4.2800e-003**	**3.0800e-003**	**0.0323**	**1.0000e-004**	**0.0102**	**7.0000e-005**	**0.0103**	**2.7200e-003**	**6.0000e-005**	**2.7800e-003**	**0.0000**	**8.7739**	**8.7739**	**2.2000e-004**	**0.0000**	**8.7793**

3.5 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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600

Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0206**	**154.0206**	**0.0376**	**0.0000**	**154.9600**

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	0.1484	4.2630	1.1354	0.0102	0.2463	0.0211	0.2674	0.0712	0.0202	0.0914	0.0000	978.8287	978.8287	0.0449	0.0000	979.9509
Worker	0.2918	0.2097	2.1985	6.6100e-003	0.6967	4.5000e-003	0.7012	0.1853	4.1500e-003	0.1894	0.0000	597.4875	597.4875	0.0147	0.0000	597.8539
Total	**0.4402**	**4.4727**	**3.3339**	**0.0168**	**0.9430**	**0.0256**	**0.9686**	**0.2565**	**0.0244**	**0.2808**	**0.0000**	**1,576.3162**	**1,576.3162**	**0.0596**	**0.0000**	**1,577.8048**

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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0205**	**154.0205**	**0.0376**	**0.0000**	**154.9598**

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	0.1484	4.2630	1.1354	0.0102	0.2463	0.0211	0.2674	0.0712	0.0202	0.0914	0.0000	978.8287	978.8287	0.0449	0.0000	979.9509
Worker	0.2918	0.2097	2.1985	6.6100e-003	0.6967	4.5000e-003	0.7012	0.1853	4.1500e-003	0.1894	0.0000	597.4875	597.4875	0.0147	0.0000	597.8539
Total	**0.4402**	**4.4727**	**3.3339**	**0.0168**	**0.9430**	**0.0256**	**0.9686**	**0.2565**	**0.0244**	**0.2808**	**0.0000**	**1,576.3162**	**1,576.3162**	**0.0596**	**0.0000**	**1,577.8048**

3.5 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.2396	7.5499	2.0098	0.0198	0.4834	0.0167	0.5001	0.1398	0.0160	0.1558	0.0000	1,903.1278	1,903.1278	0.0829	0.0000	1,905.2012
Worker	0.5311	0.3677	3.9435	0.0125	1.3673	8.6000e-003	1.3759	0.3636	7.9200e-003	0.3716	0.0000	1,131.8157	1,131.8157	0.0257	0.0000	1,132.4592
Total	**0.7707**	**7.9176**	**5.9533**	**0.0324**	**1.8506**	**0.0253**	**1.8760**	**0.5034**	**0.0239**	**0.5273**	**0.0000**	**3,034.9435**	**3,034.9435**	**0.1087**	**0.0000**	**3,037.6604**

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.2396	7.5499	2.0098	0.0198	0.4834	0.0167	0.5001	0.1398	0.0160	0.1558	0.0000	1,903.1278	1,903.1278	0.0829	0.0000	1,905.2012

Worker	0.5311	0.3677	3.9435	0.0125	1.3673	8.6000e-003	1.3759	0.3636	7.9200e-003	0.3716	0.0000	1,131.8157	1,131.8157	0.0257	0.0000	1,132.4592
Total	**0.7707**	**7.9176**	**5.9533**	**0.0324**	**1.8506**	**0.0253**	**1.8760**	**0.5034**	**0.0239**	**0.5273**	**0.0000**	**3,034.9435**	**3,034.9435**	**0.1087**	**0.0000**	**3,037.6604**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.2227	7.1095	1.8856	0.0196	0.4815	0.0145	0.4960	0.1392	0.0139	0.1531	0.0000	1,877.6987	1,877.6987	0.0789	0.0000	1,879.6709
Worker	0.4938	0.3286	3.6107	0.0120	1.3620	8.3800e-003	1.3704	0.3622	7.7200e-003	0.3700	0.0000	1,086.5250	1,086.5250	0.0230	0.0000	1,087.0999
Total	**0.7165**	**7.4381**	**5.4963**	**0.0316**	**1.8436**	**0.0229**	**1.8664**	**0.5015**	**0.0216**	**0.5230**	**0.0000**	**2,964.2237**	**2,964.2237**	**0.1019**	**0.0000**	**2,966.7708**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.2227	7.1095	1.8856	0.0196	0.4815	0.0145	0.4960	0.1392	0.0139	0.1531	0.0000	1,877.6987	1,877.6987	0.0789	0.0000	1,879.6709
Worker	0.4938	0.3286	3.6107	0.0120	1.3620	8.3800e-003	1.3704	0.3622	7.7200e-003	0.3700	0.0000	1,086.5250	1,086.5250	0.0230	0.0000	1,087.0999
Total	**0.7165**	**7.4381**	**5.4963**	**0.0316**	**1.8436**	**0.0229**	**1.8664**	**0.5015**	**0.0216**	**0.5230**	**0.0000**	**2,964.2237**	**2,964.2237**	**0.1019**	**0.0000**	**2,966.7708**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

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	0.1678	5.3880	1.6936	0.0190	0.4816	6.2900e-003	0.4879	0.1392	6.0100e-003	0.1453	0.0000	1,824.3135	1,824.3135	0.0672	0.0000	1,825.9926
Worker	0.4623	0.2956	3.3221	0.0116	1.3620	8.2200e-003	1.3702	0.3622	7.5600e-003	0.3698	0.0000	1,045.2529	1,045.2529	0.0206	0.0000	1,045.7683
Total	**0.6301**	**5.6836**	**5.0157**	**0.0305**	**1.8436**	**0.0145**	**1.8581**	**0.5015**	**0.0136**	**0.5151**	**0.0000**	**2,869.5664**	**2,869.5664**	**0.0878**	**0.0000**	**2,871.7608**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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	0.1678	5.3880	1.6936	0.0190	0.4816	6.2900e-003	0.4879	0.1392	6.0100e-003	0.1453	0.0000	1,824.3135	1,824.3135	0.0672	0.0000	1,825.9926
Worker	0.4623	0.2956	3.3221	0.0116	1.3620	8.2200e-003	1.3702	0.3622	7.5600e-003	0.3698	0.0000	1,045.2529	1,045.2529	0.0206	0.0000	1,045.7683
Total	**0.6301**	**5.6836**	**5.0157**	**0.0305**	**1.8436**	**0.0145**	**1.8581**	**0.5015**	**0.0136**	**0.5151**	**0.0000**	**2,869.5664**	**2,869.5664**	**0.0878**	**0.0000**	**2,871.7608**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.1637	5.3609	1.6479	0.0190	0.4853	6.2500e-003	0.4916	0.1403	5.9700e-003	0.1463	0.0000	1,826.0540	1,826.0540	0.0663	0.0000	1,827.7115
Worker	0.4385	0.2692	3.1042	0.0112	1.3725	8.1300e-003	1.3806	0.3650	7.4900e-003	0.3725	0.0000	1,011.9207	1,011.9207	0.0187	0.0000	1,012.3887
Total	**0.6022**	**5.6301**	**4.7521**	**0.0302**	**1.8578**	**0.0144**	**1.8722**	**0.5053**	**0.0135**	**0.5188**	**0.0000**	**2,837.9748**	**2,837.9748**	**0.0850**	**0.0000**	**2,840.1002**

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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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	0.1637	5.3609	1.6479	0.0190	0.4853	6.2500e-003	0.4916	0.1403	5.9700e-003	0.1463	0.0000	1,826.0540	1,826.0540	0.0663	0.0000	1,827.7115
Worker	0.4385	0.2692	3.1042	0.0112	1.3725	8.1300e-003	1.3806	0.3650	7.4900e-003	0.3725	0.0000	1,011.9207	1,011.9207	0.0187	0.0000	1,012.3887
Total	**0.6022**	**5.6301**	**4.7521**	**0.0302**	**1.8578**	**0.0144**	**1.8722**	**0.5053**	**0.0135**	**0.5188**	**0.0000**	**2,837.9748**	**2,837.9748**	**0.0850**	**0.0000**	**2,840.1002**

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.1586	5.2693	1.5981	0.0188	0.4835	6.1200e-003	0.4896	0.1398	5.8500e-003	0.1456	0.0000	1,807.2830	1,807.2830	0.0648	0.0000	1,808.9016
Worker	0.4132	0.2438	2.8654	0.0107	1.3673	7.9900e-003	1.3752	0.3636	7.3500e-003	0.3710	0.0000	967.2909	967.2909	0.0169	0.0000	967.7129

Total	**0.5718**	**5.5130**	**4.4635**	**0.0295**	**1.8507**	**0.0141**	**1.8648**	**0.5034**	**0.0132**	**0.5166**	**0.0000**	**2,774.5739**	**2,774.5739**	**0.0816**	**0.0000**	**2,776.6146**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.1586	5.2693	1.5981	0.0188	0.4835	6.1200e-003	0.4896	0.1398	5.8500e-003	0.1456	0.0000	1,807.2830	1,807.2830	0.0648	0.0000	1,808.9016
Worker	0.4132	0.2438	2.8654	0.0107	1.3673	7.9900e-003	1.3752	0.3636	7.3500e-003	0.3710	0.0000	967.2909	967.2909	0.0169	0.0000	967.7129
Total	**0.5718**	**5.5130**	**4.4635**	**0.0295**	**1.8507**	**0.0141**	**1.8648**	**0.5034**	**0.0132**	**0.5166**	**0.0000**	**2,774.5739**	**2,774.5739**	**0.0816**	**0.0000**	**2,776.6146**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.1548	5.1995	1.5669	0.0187	0.4835	6.0100e-003	0.4895	0.1398	5.7500e-003	0.1456	0.0000	1,796.5579	1,796.5579	0.0636	0.0000	1,798.1478
Worker	0.3932	0.2233	2.6738	0.0103	1.3673	7.7700e-003	1.3750	0.3636	7.1500e-003	0.3708	0.0000	931.4882	931.4882	0.0154	0.0000	931.8728
Total	**0.5480**	**5.4228**	**4.2407**	**0.0290**	**1.8508**	**0.0138**	**1.8645**	**0.5034**	**0.0129**	**0.5163**	**0.0000**	**2,728.0461**	**2,728.0461**	**0.0790**	**0.0000**	**2,730.0207**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.1548	5.1995	1.5669	0.0187	0.4835	6.0100e-003	0.4895	0.1398	5.7500e-003	0.1456	0.0000	1,796.5579	1,796.5579	0.0636	0.0000	1,798.1478
Worker	0.3932	0.2233	2.6738	0.0103	1.3673	7.7700e-003	1.3750	0.3636	7.1500e-003	0.3708	0.0000	931.4882	931.4882	0.0154	0.0000	931.8728
Total	**0.5480**	**5.4228**	**4.2407**	**0.0290**	**1.8508**	**0.0138**	**1.8645**	**0.5034**	**0.0129**	**0.5163**	**0.0000**	**2,728.0461**	**2,728.0461**	**0.0790**	**0.0000**	**2,730.0207**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2185**	**292.2185**	**0.0687**	**0.0000**	**293.9358**

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	0.1463	4.9516	1.4880	0.0179	0.4669	5.7000e-003	0.4726	0.1350	5.4400e-003	0.1404	0.0000	1,724.9100	1,724.9100	0.0603	0.0000	1,726.4186
Worker	0.3609	0.1981	2.4168	9.6000e-003	1.3201	7.1300e-003	1.3272	0.3511	6.5600e-003	0.3577	0.0000	868.6885	868.6885	0.0136	0.0000	869.0277
Total	**0.5072**	**5.1497**	**3.9048**	**0.0275**	**1.7870**	**0.0128**	**1.7998**	**0.4861**	**0.0120**	**0.4981**	**0.0000**	**2,593.5985**	**2,593.5985**	**0.0739**	**0.0000**	**2,595.4463**

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	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2182**	**292.2182**	**0.0687**	**0.0000**	**293.9355**

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	0.1463	4.9516	1.4880	0.0179	0.4669	5.7000e-003	0.4726	0.1350	5.4400e-003	0.1404	0.0000	1,724.9100	1,724.9100	0.0603	0.0000	1,726.4186
Worker	0.3609	0.1981	2.4168	9.6000e-003	1.3201	7.1300e-003	1.3272	0.3511	6.5600e-003	0.3577	0.0000	868.6885	868.6885	0.0136	0.0000	869.0277
Total	**0.5072**	**5.1497**	**3.9048**	**0.0275**	**1.7870**	**0.0128**	**1.7998**	**0.4861**	**0.0120**	**0.4981**	**0.0000**	**2,593.5985**	**2,593.5985**	**0.0739**	**0.0000**	**2,595.4463**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

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	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1165**	**121.1165**	**0.0392**	**0.0000**	**122.0958**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

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	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1164**	**121.1164**	**0.0392**	**0.0000**	**122.0956**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.8388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	**7.8499**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5962**	**16.5962**	**9.1000e-004**	**0.0000**	**16.6188**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0352	0.0188	0.2342	9.6000e-004	0.1361	6.8000e-004	0.1368	0.0362	6.3000e-004	0.0368	0.0000	86.7706	86.7706	1.2800e-003	0.0000	86.8027
Total	**0.0352**	**0.0188**	**0.2342**	**9.6000e-004**	**0.1361**	**6.8000e-004**	**0.1368**	**0.0362**	**6.3000e-004**	**0.0368**	**0.0000**	**86.7706**	**86.7706**	**1.2800e-003**	**0.0000**	**86.8027**

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	7.8388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	**7.8499**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5961**	**16.5961**	**9.1000e-004**	**0.0000**	**16.6188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0352	0.0188	0.2342	9.6000e-004	0.1361	6.8000e-004	0.1368	0.0362	6.3000e-004	0.0368	0.0000	86.7706	86.7706	1.2800e-003	0.0000	86.8027
Total	**0.0352**	**0.0188**	**0.2342**	**9.6000e-004**	**0.1361**	**6.8000e-004**	**0.1368**	**0.0362**	**6.3000e-004**	**0.0368**	**0.0000**	**86.7706**	**86.7706**	**1.2800e-003**	**0.0000**	**86.8027**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.4452	18.4502	45.7951	0.1834	20.3266	0.1316	20.4582	5.4398	0.1223	5.5621	0.0000	16,873.0183	16,873.0183	0.5145	0.0000	16,885.8806
Unmitigated	4.4452	18.4502	45.7951	0.1834	20.3266	0.1316	20.4582	5.4398	0.1223	5.5621	0.0000	16,873.0183	16,873.0183	0.5145	0.0000	16,885.8806

4.2 Trip Summary Information

	Average Daily Trip Rate		
	Unmitigated	Mitigated	

Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	1,148.48	1,151.44	836.20	2,098,077	2,098,077
Regional Shopping Center	31,081.84	36,215.84	18289.12	52,577,644	52,577,644
Total	32,230.32	37,367.28	19,125.32	54,675,722	54,675,722

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Hotel	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0668	0.6071	0.5100	3.6400e-003		0.0461	0.0461		0.0461	0.0461	0.0000	660.9109	660.9109	0.0127	0.0121	664.8383
NaturalGas Unmitigated	0.0668	0.6071	0.5100	3.6400e-003		0.0461	0.0461		0.0461	0.0461	0.0000	660.9109	660.9109	0.0127	0.0121	664.8383

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	9.52204e+006	0.0513	0.4668	0.3921	2.8000e-003		0.0355	0.0355		0.0355	0.0355	0.0000	508.1324	508.1324	9.7400e-003	9.3200e-003	511.1520
Regional Shopping Center	2.86296e+006	0.0154	0.1403	0.1179	8.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	152.7785	152.7785	2.9300e-003	2.8000e-003	153.6863
Total		**0.0668**	**0.6071**	**0.5100**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**	**0.0000**	**660.9109**	**660.9109**	**0.0127**	**0.0121**	**664.8383**

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	9.52204e+006	0.0513	0.4668	0.3921	2.8000e-003		0.0355	0.0355		0.0355	0.0355	0.0000	508.1324	508.1324	9.7400e-003	9.3200e-003	511.1520
Regional Shopping Center	2.86296e+006	0.0154	0.1403	0.1179	8.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	152.7785	152.7785	2.9300e-003	2.8000e-003	153.6863
Total		**0.0668**	**0.6071**	**0.5100**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**	**0.0000**	**660.9109**	**660.9109**	**0.0127**	**0.0121**	**664.8383**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.17809e+007	0.0000	0.0000	0.0000	0.0000
Hotel	1.63751e+006	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.29135e+007	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.17809e+007	0.0000	0.0000	0.0000	0.0000
Hotel	1.63751e+006	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.29135e+007	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.4763	5.3000e-004	0.0585	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.1140	0.1140	3.0000e-004	0.0000	0.1215
Unmitigated	6.4763	5.3000e-004	0.0585	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.1140	0.1140	3.0000e-004	0.0000	0.1215

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	0.7839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6871					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.3900e-003	5.3000e-004	0.0585	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.1140	0.1140	3.0000e-004	0.0000	0.1215
Total	**6.4764**	**5.3000e-004**	**0.0585**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.1140**	**0.1140**	**3.0000e-004**	**0.0000**	**0.1215**

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	0.7839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6871					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.3900e-003	5.3000e-004	0.0585	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.1140	0.1140	3.0000e-004	0.0000	0.1215
Total	**6.4764**	**5.3000e-004**	**0.0585**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.1140**	**0.1140**	**3.0000e-004**	**0.0000**	**0.1215**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	29.5788	3.0380	0.0717	126.9064
Unmitigated	29.5788	3.0380	0.0717	126.9064

7.2 Water by Land Use

Unmitigated

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

Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	3.75428 / 0.417142	1.1911	0.1223	2.8900e-003	5.1102
Regional Shopping Center	89.4796 / 54.8423	28.3878	2.9157	0.0689	121.7962
Total		**29.5788**	**3.0380**	**0.0717**	**126.9064**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	3.75428 / 0.417142	1.1911	0.1223	2.8900e-003	5.1102
Regional Shopping Center	89.4796 / 54.8423	28.3878	2.9157	0.0689	121.7962
Total		**29.5788**	**3.0380**	**0.0717**	**126.9064**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	273.9221	16.1883	0.0000	678.6304
Unmitigated	273.9221	16.1883	0.0000	678.6304

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	81.03	16.4484	0.9721	0.0000	40.7501
Regional Shopping Center	1268.4	257.4737	15.2163	0.0000	637.8803
Total		**273.9221**	**16.1883**	**0.0000**	**678.6304**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	81.03	16.4484	0.9721	0.0000	40.7501
Regional Shopping Center	1268.4	257.4737	15.2163	0.0000	637.8803
Total		**273.9221**	**16.1883**	**0.0000**	**678.6304**

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

Vallco, Cupertino - Proposed Project

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	2,000.00	1000sqft	58.00	2,000,000.00	0
Enclosed Parking with Elevator	11,391.00	Space	0.00	4,556,400.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	800.00	Dwelling Unit	0.00	800,000.00	2288
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0
City Park	30.00	Acre	0.00	1,306,800.00	0
Government (Civic Center)	45.00	1000sqft	0.00	45,000.00	0
Racquet Club	10.00	1000sqft	0.00	10,000.00	0
Junior College (2Yr)	10.00	1000sqft	0.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT -

Demolition - 2,170,350 sf demo

Grading - 2,000,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - Low VOC paint, no hearth

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	120.00	256.00
tblFireplaces	NumberWood	136.00	0.00
tblGrading	MaterialExported	0.00	2,000,000.00
tblLandUse	LotAcreage	45.91	58.00
tblLandUse	LotAcreage	102.52	0.00
tblLandUse	LotAcreage	11.30	0.00

tblLandUse	LotAcreage	21.05	0.00
tblLandUse	LotAcreage	13.77	0.00
tblLandUse	LotAcreage	30.00	0.00
tblLandUse	LotAcreage	1.03	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	0.23	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	CC_TL	7.30	5.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	5.00
tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.39	4.35
tblVehicleTrips	ST_TR	2.46	2.29
tblVehicleTrips	ST_TR	8.19	6.96
tblVehicleTrips	ST_TR	49.97	32.98
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	ST_TR	22.75	15.70
tblVehicleTrips	ST_TR	11.23	4.72
tblVehicleTrips	ST_TR	21.35	23.90
tblVehicleTrips	SU_TR	5.86	3.98
tblVehicleTrips	SU_TR	1.05	0.98
tblVehicleTrips	SU_TR	5.95	5.06
tblVehicleTrips	SU_TR	25.24	16.66
tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	SU_TR	16.74	15.70
tblVehicleTrips	SU_TR	1.21	0.51
tblVehicleTrips	SU_TR	17.40	23.90

tblVehicleTrips	WD_TR	6.65	4.52
tblVehicleTrips	WD_TR	11.03	10.25
tblVehicleTrips	WD_TR	8.17	6.94
tblVehicleTrips	WD_TR	42.70	28.13
tblVehicleTrips	WD_TR	0.00	808.00
tblVehicleTrips	WD_TR	1.89	15.70
tblVehicleTrips	WD_TR	27.92	18.76
tblVehicleTrips	WD_TR	27.49	11.60
tblVehicleTrips	WD_TR	14.03	23.90
tblWoodstoves	NumberCatalytic	16.00	0.00
tblWoodstoves	NumberNoncatalytic	16.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.9067	18.4242	5.7827	0.0388	4.1297	0.3225	4.4523	1.1533	0.2998	1.4531	0.0000	3,707.0545	3,707.0545	0.3012	0.0000	3,714.5838
2020	2.4864	42.7199	18.4568	0.1246	5.5636	0.3707	5.9344	1.5587	0.3478	1.9065	0.0000	11,845.3165	11,845.3165	0.6308	0.0000	11,861.0853
2021	2.5620	24.3896	19.9857	0.0975	5.5863	0.1983	5.7846	1.5168	0.1867	1.7035	0.0000	9,101.9554	9,101.9554	0.3832	0.0000	9,111.5357
2022	2.3730	22.7999	18.5720	0.0951	5.5650	0.1715	5.7365	1.5110	0.1614	1.6724	0.0000	8,889.7008	8,889.7008	0.3627	0.0000	8,898.7681
2023	2.1056	17.7551	17.1274	0.0921	5.5651	0.1340	5.6990	1.5111	0.1258	1.6368	0.0000	8,613.4048	8,613.4048	0.3223	0.0000	8,621.4609

2024	2.0086	17.4891	16.3301	0.0910	5.6080	0.1229	5.7309	1.5227	0.1154	1.6381	0.0000	8,517.1629	8,517.1629	0.3141	0.0000	8,525.0151
2025	1.9015	17.0217	15.4318	0.0889	5.5866	0.1106	5.6973	1.5169	0.1038	1.6208	0.0000	8,325.4320	8,325.4320	0.3034	0.0000	8,333.0169
2026	1.8288	16.7645	14.7507	0.0874	5.5867	0.1097	5.6964	1.5170	0.1029	1.6199	0.0000	8,184.5167	8,184.5167	0.2956	0.0000	8,191.9059
2027	1.7032	15.9800	13.7278	0.0831	5.3947	0.1063	5.5010	1.4648	0.0998	1.5646	0.0000	7,789.4933	7,789.4933	0.2814	0.0000	7,796.5269
2028	23.2225	0.6531	1.7395	4.6000e-003	0.4299	0.0308	0.4608	0.1143	0.0286	0.1430	0.0000	411.8162	411.8162	0.0441	0.0000	412.9195
Maximum	**23.2225**	**42.7199**	**19.9857**	**0.1246**	**5.6080**	**0.3707**	**5.9344**	**1.5587**	**0.3478**	**1.9065**	**0.0000**	**11,845.3165**	**11,845.3165**	**0.6308**	**0.0000**	**11,861.0853**

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					
2019	0.4756	14.7424	6.0762	0.0388	2.3575	0.0586	2.4161	0.6264	0.0565	0.6829	0.0000	3,707.0539	3,707.0539	0.3012	0.0000	3,714.5832
2020	2.1591	40.1750	18.8322	0.1246	4.9880	0.1684	5.1564	1.3598	0.1611	1.5209	0.0000	11,845.3159	11,845.3159	0.6308	0.0000	11,861.0847
2021	2.3836	23.5388	20.1552	0.0975	5.5863	0.0843	5.6706	1.5168	0.0801	1.5969	0.0000	9,101.9550	9,101.9550	0.3832	0.0000	9,111.5353
2022	2.2205	22.1885	18.7683	0.0951	5.5650	0.0773	5.6423	1.5110	0.0735	1.5845	0.0000	8,889.7005	8,889.7005	0.3627	0.0000	8,898.7677
2023	1.9705	17.3037	17.3392	0.0921	5.5651	0.0540	5.6191	1.5111	0.0512	1.5622	0.0000	8,613.4044	8,613.4044	0.3223	0.0000	8,621.4606
2024	1.8857	17.1575	16.5537	0.0910	5.6080	0.0537	5.6617	1.5227	0.0509	1.5736	0.0000	8,517.1625	8,517.1625	0.3141	0.0000	8,525.0148
2025	1.7927	16.8185	15.6653	0.0889	5.5866	0.0528	5.6395	1.5169	0.0501	1.5670	0.0000	8,325.4317	8,325.4317	0.3034	0.0000	8,333.0166
2026	1.7200	16.5613	14.9842	0.0874	5.5867	0.0519	5.6386	1.5170	0.0492	1.5661	0.0000	8,184.5163	8,184.5163	0.2956	0.0000	8,191.9056
2027	1.5955	15.7903	13.9654	0.0831	5.3947	0.0488	5.4435	1.4648	0.0463	1.5111	0.0000	7,789.4929	7,789.4929	0.2814	0.0000	7,796.5265
2028	23.1798	0.7357	1.9054	4.6000e-003	0.4299	4.6800e-003	0.4346	0.1143	4.5100e-003	0.1189	0.0000	411.8160	411.8160	0.0441	0.0000	412.9194

Maximum	23.1798	40.1750	20.1552	0.1246	5.6080	0.1684	5.6706	1.5227	0.1611	1.5969	0.0000	11,845.3159	11,845.3159	0.6308	0.0000	11,861.0847

	ROG	NOx	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	4.17	4.63	-1.65	0.00	4.79	60.99	6.65	5.42	60.34	11.19	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	1-1-2019	3-31-2019	2.0521	1.2436
2	4-1-2019	6-30-2019	2.0549	1.2374
3	7-1-2019	9-30-2019	1.6482	0.4351
4	10-1-2019	12-31-2019	13.7374	12.4685
5	1-1-2020	3-31-2020	15.1614	14.0445
6	4-1-2020	6-30-2020	14.7588	13.6506
7	7-1-2020	9-30-2020	7.4344	7.1104
8	10-1-2020	12-31-2020	7.6051	7.2811
9	1-1-2021	3-31-2021	6.7066	6.4531
10	4-1-2021	6-30-2021	6.6410	6.3847
11	7-1-2021	9-30-2021	6.7140	6.4549
12	10-1-2021	12-31-2021	6.8556	6.5965
13	1-1-2022	3-31-2022	6.2856	6.0967
14	4-1-2022	6-30-2022	6.2302	6.0392
15	7-1-2022	9-30-2022	6.2987	6.1056
16	10-1-2022	12-31-2022	6.4253	6.2322
17	1-1-2023	3-31-2023	4.9679	4.8229
18	4-1-2023	6-30-2023	4.9247	4.7781
19	7-1-2023	9-30-2023	4.9788	4.8306
20	10-1-2023	12-31-2023	5.0783	4.9300
21	1-1-2024	3-31-2024	4.8913	4.7785
22	4-1-2024	6-30-2024	4.7985	4.6857
23	7-1-2024	9-30-2024	4.8512	4.7372
24	10-1-2024	12-31-2024	4.9450	4.8310

25	**1-1-2025**	**3-31-2025**	4.7110	4.6341
26	**4-1-2025**	**6-30-2025**	4.6757	4.5980
27	**7-1-2025**	**9-30-2025**	4.7271	4.6485
28	**10-1-2025**	**12-31-2025**	4.8157	4.7371
29	**1-1-2026**	**3-31-2026**	4.6270	4.5501
30	**4-1-2026**	**6-30-2026**	4.5950	4.5173
31	**7-1-2026**	**9-30-2026**	4.6455	4.5669
32	**10-1-2026**	**12-31-2026**	4.7298	4.6512
33	**1-1-2027**	**3-31-2027**	4.5447	4.4678
34	**4-1-2027**	**6-30-2027**	4.5161	4.4383
35	**7-1-2027**	**9-30-2027**	4.5657	4.4871
36	**10-1-2027**	**12-31-2027**	4.1277	4.0620
37	**1-1-2028**	**3-31-2028**	0.3104	0.3389
38	**4-1-2028**	**6-30-2028**	1.6806	1.7049
39	**7-1-2028**	**9-30-2028**	11.7759	11.7692
		Highest	15.1614	14.0445

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	18.2598	0.0972	6.0784	5.0000e-004		0.0356	0.0356		0.0356	0.0356	0.0000	41.9197	41.9197	0.0106	5.9000e-004	42.3586
Energy	0.3458	3.1231	2.4914	0.0189		0.2389	0.2389		0.2389	0.2389	0.0000	3,422.0040	3,422.0040	0.0656	0.0627	3,442.3392
Mobile	6.0034	25.1845	66.0625	0.2728	30.6895	0.1929	30.8824	8.2131	0.1793	8.3924	0.0000	25,099.9844	25,099.9844	0.7432	0.0000	25,118.5638
Waste						0.0000	0.0000		0.0000	0.0000	684.6236	0.0000	684.6236	40.4601	0.0000	1,696.1259
Water						0.0000	0.0000		0.0000	0.0000	149.3172	0.0000	149.3172	15.3363	0.3621	640.6376

Total	**24.6091**	**28.4048**	**74.6324**	**0.2922**	**30.6895**	**0.4674**	**31.1570**	**8.2131**	**0.4538**	**8.6670**	**833.9407**	**28,563.9080**	**29,397.8487**	**56.6157**	**0.4255**	**30,940.0251**

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	16.9658	0.0696	6.0667	3.2000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	9.9608	9.9608	9.9600e-003	0.0000	10.2099
Energy	0.3458	3.1231	2.4914	0.0189		0.2389	0.2389		0.2389	0.2389	0.0000	3,422.0040	3,422.0040	0.0656	0.0627	3,442.3392
Mobile	6.0034	25.1845	66.0625	0.2728	30.6895	0.1929	30.8824	8.2131	0.1793	8.3924	0.0000	25,099.9844	25,099.9844	0.7432	0.0000	25,118.5638
Waste						0.0000	0.0000		0.0000	0.0000	684.6236	0.0000	684.6236	40.4601	0.0000	1,696.1259
Water						0.0000	0.0000		0.0000	0.0000	149.3172	0.0000	149.3172	15.3363	0.3621	640.6376
Total	**23.3150**	**28.3772**	**74.6206**	**0.2920**	**30.6895**	**0.4652**	**31.1547**	**8.2131**	**0.4516**	**8.6647**	**833.9407**	**28,531.9491**	**29,365.8899**	**56.6151**	**0.4249**	**30,907.8763**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.26**	**0.10**	**0.02**	**0.06**	**0.00**	**0.48**	**0.01**	**0.00**	**0.49**	**0.03**	**0.00**	**0.11**	**0.11**	**0.00**	**0.14**	**0.10**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	

5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 1,620,000; Residential Outdoor: 540,000; Non-Residential Indoor: 4,735,842; Non-Residential Outdoor: 1,578,614;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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	9,872.00	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	8	20.00	0.00	250,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	4,100.00	1,564.00	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	820.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**1.0682**	**0.1167**	**1.1849**	**0.1617**	**0.1085**	**0.2703**	**0.0000**	**225.0711**	**225.0711**	**0.0626**	**0.0000**	**226.6365**

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**0.0484**	**1.5395**	**0.3308**	**4.0100e-003**	**0.0914**	**5.9500e-003**	**0.0973**	**0.0251**	**5.6900e-003**	**0.0308**	**0.0000**	**387.2356**	**387.2356**	**0.0180**	**0.0000**	**387.6859**

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					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0380	0.8812	1.6038	2.5200e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	**0.0380**	**0.8812**	**1.6038**	**2.5200e-003**	**0.2403**	**4.0100e-003**	**0.2444**	**0.0364**	**4.0100e-003**	**0.0404**	**0.0000**	**225.0709**	**225.0709**	**0.0626**	**0.0000**	**226.6362**

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**0.0484**	**1.5395**	**0.3308**	**4.0100e-003**	**0.0914**	**5.9500e-003**	**0.0973**	**0.0251**	**5.6900e-003**	**0.0308**	**0.0000**	**387.2356**	**387.2356**	**0.0180**	**0.0000**	**387.6859**

3.3 Site Preparation - 2019

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					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.7046**	**0.0932**	**0.7978**	**0.3873**	**0.0858**	**0.4731**	**0.0000**	**133.2579**	**133.2579**	**0.0422**	**0.0000**	**134.3119**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320

Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.4743	0.8954	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	**0.0272**	**0.4743**	**0.8954**	**1.4800e-003**	**0.1585**	**2.4200e-003**	**0.1610**	**0.0871**	**2.4200e-003**	**0.0896**	**0.0000**	**133.2577**	**133.2577**	**0.0422**	**0.0000**	**134.3118**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

3.4 Grading - 2019

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					0.5139	0.0000	0.5139	0.1309	0.0000	0.1309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.5139**	**0.0631**	**0.5771**	**0.1309**	**0.0581**	**0.1890**	**0.0000**	**147.6085**	**147.6085**	**0.0467**	**0.0000**	**148.7760**

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	0.3308	11.3334	2.2386	0.0290	1.7418	0.0435	1.7853	0.4457	0.0416	0.4874	0.0000	2,805.2317	2,805.2317	0.1315	0.0000	2,808.5180
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**0.3328**	**11.3348**	**2.2534**	**0.0291**	**1.7460**	**0.0435**	**1.7896**	**0.4469**	**0.0417**	**0.4885**	**0.0000**	**2,808.9528**	**2,808.9528**	**0.1316**	**0.0000**	**2,812.2415**

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					0.1156	0.0000	0.1156	0.0295	0.0000	0.0295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.5107	0.9732	1.6400e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	**0.0268**	**0.5107**	**0.9732**	**1.6400e-003**	**0.1156**	**2.6900e-003**	**0.1183**	**0.0295**	**2.6900e-003**	**0.0321**	**0.0000**	**147.6083**	**147.6083**	**0.0467**	**0.0000**	**148.7759**

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	0.3308	11.3334	2.2386	0.0290	1.7418	0.0435	1.7853	0.4457	0.0416	0.4874	0.0000	2,805.2317	2,805.2317	0.1315	0.0000	2,808.5180
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**0.3328**	**11.3348**	**2.2534**	**0.0291**	**1.7460**	**0.0435**	**1.7896**	**0.4469**	**0.0417**	**0.4885**	**0.0000**	**2,808.9528**	**2,808.9528**	**0.1316**	**0.0000**	**2,812.2415**

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					0.7428	0.0000	0.7428	0.2567	0.0000	0.2567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.7428**	**0.1402**	**0.8830**	**0.2567**	**0.1290**	**0.3857**	**0.0000**	**351.4237**	**351.4237**	**0.1137**	**0.0000**	**354.2651**

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	0.7362	25.7100	5.2653	0.0698	1.9640	0.0835	2.0475	0.5264	0.0799	0.6063	0.0000	6,757.5088	6,757.5088	0.3091	0.0000	6,765.2369
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**0.7405**	**25.7131**	**5.2976**	**0.0699**	**1.9742**	**0.0836**	**2.0578**	**0.5291**	**0.0800**	**0.6091**	**0.0000**	**6,766.2828**	**6,766.2828**	**0.3093**	**0.0000**	**6,774.0162**

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					0.1671	0.0000	0.1671	0.0578	0.0000	0.0578	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0652	1.2430	2.3686	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	**0.0652**	**1.2430**	**2.3686**	**4.0000e-003**	**0.1671**	**6.5500e-003**	**0.1737**	**0.0578**	**6.5500e-003**	**0.0643**	**0.0000**	**351.4233**	**351.4233**	**0.1137**	**0.0000**	**354.2647**

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	0.7362	25.7100	5.2653	0.0698	1.9640	0.0835	2.0475	0.5264	0.0799	0.6063	0.0000	6,757.5088	6,757.5088	0.3091	0.0000	6,765.2369
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**0.7405**	**25.7131**	**5.2976**	**0.0699**	**1.9742**	**0.0836**	**2.0578**	**0.5291**	**0.0800**	**0.6091**	**0.0000**	**6,766.2828**	**6,766.2828**	**0.3093**	**0.0000**	**6,774.0162**

3.5 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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600
Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0206**	**154.0206**	**0.0376**	**0.0000**	**154.9600**

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	0.4122	11.8425	3.1540	0.0284	0.6842	0.0587	0.7429	0.1978	0.0561	0.2539	0.0000	2,719.1618	2,719.1618	0.1247	0.0000	2,722.2793
Worker	0.9057	0.6508	6.8234	0.0205	2.1624	0.0140	2.1764	0.5751	0.0129	0.5880	0.0000	1,854.4276	1,854.4276	0.0455	0.0000	1,855.5647
Total	**1.3178**	**12.4933**	**9.9775**	**0.0489**	**2.8466**	**0.0726**	**2.9193**	**0.7729**	**0.0690**	**0.8419**	**0.0000**	**4,573.5894**	**4,573.5894**	**0.1702**	**0.0000**	**4,577.8440**

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	0.0355	0.7257	1.1886	1.7900e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	**0.0355**	**0.7257**	**1.1886**	**1.7900e-003**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**154.0205**	**154.0205**	**0.0376**	**0.0000**	**154.9598**

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	0.4122	11.8425	3.1540	0.0284	0.6842	0.0587	0.7429	0.1978	0.0561	0.2539	0.0000	2,719.1618	2,719.1618	0.1247	0.0000	2,722.2793
Worker	0.9057	0.6508	6.8234	0.0205	2.1624	0.0140	2.1764	0.5751	0.0129	0.5880	0.0000	1,854.4276	1,854.4276	0.0455	0.0000	1,855.5647
Total	**1.3178**	**12.4933**	**9.9775**	**0.0489**	**2.8466**	**0.0726**	**2.9193**	**0.7729**	**0.0690**	**0.8419**	**0.0000**	**4,573.5894**	**4,573.5894**	**0.1702**	**0.0000**	**4,577.8440**

3.5 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.6657	20.9734	5.5830	0.0551	1.3428	0.0465	1.3893	0.3882	0.0445	0.4327	0.0000	5,286.8417	5,286.8417	0.2304	0.0000	5,292.6016
Worker	1.6483	1.1413	12.2396	0.0389	4.2436	0.0267	4.2703	1.1286	0.0246	1.1532	0.0000	3,512.8270	3,512.8270	0.0799	0.0000	3,514.8243
Total	**2.3139**	**22.1147**	**17.8226**	**0.0940**	**5.5863**	**0.0732**	**5.6595**	**1.5168**	**0.0691**	**1.5859**	**0.0000**	**8,799.6687**	**8,799.6687**	**0.3103**	**0.0000**	**8,807.4258**

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	0.0696	1.4240	2.3325	3.5100e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.0696**	**1.4240**	**2.3325**	**3.5100e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.6657	20.9734	5.5830	0.0551	1.3428	0.0465	1.3893	0.3882	0.0445	0.4327	0.0000	5,286.8417	5,286.8417	0.2304	0.0000	5,292.6016
Worker	1.6483	1.1413	12.2396	0.0389	4.2436	0.0267	4.2703	1.1286	0.0246	1.1532	0.0000	3,512.8270	3,512.8270	0.0799	0.0000	3,514.8243
Total	**2.3139**	**22.1147**	**17.8226**	**0.0940**	**5.5863**	**0.0732**	**5.6595**	**1.5168**	**0.0691**	**1.5859**	**0.0000**	**8,799.6687**	**8,799.6687**	**0.3103**	**0.0000**	**8,807.4258**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.6187	19.7500	5.2381	0.0544	1.3377	0.0403	1.3780	0.3868	0.0385	0.4253	0.0000	5,216.2004	5,216.2004	0.2192	0.0000	5,221.6790
Worker	1.5325	1.0199	11.2066	0.0373	4.2273	0.0260	4.2533	1.1243	0.0240	1.1482	0.0000	3,372.2577	3,372.2577	0.0714	0.0000	3,374.0420
Total	**2.1512**	**20.7699**	**16.4448**	**0.0916**	**5.5650**	**0.0663**	**5.6313**	**1.5110**	**0.0625**	**1.5735**	**0.0000**	**8,588.4580**	**8,588.4580**	**0.2905**	**0.0000**	**8,595.7210**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.6187	19.7500	5.2381	0.0544	1.3377	0.0403	1.3780	0.3868	0.0385	0.4253	0.0000	5,216.2004	5,216.2004	0.2192	0.0000	5,221.6790
Worker	1.5325	1.0199	11.2066	0.0373	4.2273	0.0260	4.2533	1.1243	0.0240	1.1482	0.0000	3,372.2577	3,372.2577	0.0714	0.0000	3,374.0420
Total	**2.1512**	**20.7699**	**16.4448**	**0.0916**	**5.5650**	**0.0663**	**5.6313**	**1.5110**	**0.0625**	**1.5735**	**0.0000**	**8,588.4580**	**8,588.4580**	**0.2905**	**0.0000**	**8,595.7210**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

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	0.4662	14.9678	4.7048	0.0528	1.3378	0.0175	1.3553	0.3868	0.0167	0.4035	0.0000	5,067.8974	5,067.8974	0.1866	0.0000	5,072.5619
Worker	1.4349	0.9173	10.3108	0.0359	4.2273	0.0255	4.2528	1.1243	0.0235	1.1478	0.0000	3,244.1612	3,244.1612	0.0640	0.0000	3,245.7607
Total	**1.9011**	**15.8851**	**15.0156**	**0.0886**	**5.5651**	**0.0430**	**5.6081**	**1.5111**	**0.0402**	**1.5512**	**0.0000**	**8,312.0586**	**8,312.0586**	**0.2506**	**0.0000**	**8,318.3226**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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	0.4662	14.9678	4.7048	0.0528	1.3378	0.0175	1.3553	0.3868	0.0167	0.4035	0.0000	5,067.8974	5,067.8974	0.1866	0.0000	5,072.5619

Worker	1.4349	0.9173	10.3108	0.0359	4.2273	0.0255	4.2528	1.1243	0.0235	1.1478	0.0000	3,244.1612	3,244.1612	0.0640	0.0000	3,245.7607
Total	**1.9011**	**15.8851**	**15.0156**	**0.0886**	**5.5651**	**0.0430**	**5.6081**	**1.5111**	**0.0402**	**1.5512**	**0.0000**	**8,312.0586**	**8,312.0586**	**0.2506**	**0.0000**	**8,318.3226**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.4548	14.8925	4.5778	0.0528	1.3482	0.0174	1.3655	0.3898	0.0166	0.4064	0.0000	5,072.7327	5,072.7327	0.1842	0.0000	5,077.3370
Worker	1.3611	0.8355	9.6344	0.0347	4.2598	0.0252	4.2851	1.1329	0.0232	1.1562	0.0000	3,140.7078	3,140.7078	0.0581	0.0000	3,142.1603
Total	**1.8159**	**15.7280**	**14.2122**	**0.0875**	**5.6080**	**0.0426**	**5.6506**	**1.5227**	**0.0398**	**1.5625**	**0.0000**	**8,213.4405**	**8,213.4405**	**0.2423**	**0.0000**	**8,219.4973**

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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	0.4548	14.8925	4.5778	0.0528	1.3482	0.0174	1.3655	0.3898	0.0166	0.4064	0.0000	5,072.7327	5,072.7327	0.1842	0.0000	5,077.3370
Worker	1.3611	0.8355	9.6344	0.0347	4.2598	0.0252	4.2851	1.1329	0.0232	1.1562	0.0000	3,140.7078	3,140.7078	0.0581	0.0000	3,142.1603
Total	**1.8159**	**15.7280**	**14.2122**	**0.0875**	**5.6080**	**0.0426**	**5.6506**	**1.5227**	**0.0398**	**1.5625**	**0.0000**	**8,213.4405**	**8,213.4405**	**0.2423**	**0.0000**	**8,219.4973**

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.4405	14.6379	4.4394	0.0522	1.3431	0.0170	1.3601	0.3883	0.0163	0.4046	0.0000	5,020.5873	5,020.5873	0.1799	0.0000	5,025.0838
Worker	1.2826	0.7565	8.8934	0.0332	4.2436	0.0248	4.2684	1.1286	0.0228	1.1514	0.0000	3,002.1899	3,002.1899	0.0524	0.0000	3,003.4996
Total	**1.7231**	**15.3944**	**13.3328**	**0.0854**	**5.5866**	**0.0418**	**5.6284**	**1.5169**	**0.0391**	**1.5560**	**0.0000**	**8,022.7771**	**8,022.7771**	**0.2323**	**0.0000**	**8,028.5834**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.4405	14.6379	4.4394	0.0522	1.3431	0.0170	1.3601	0.3883	0.0163	0.4046	0.0000	5,020.5873	5,020.5873	0.1799	0.0000	5,025.0838
Worker	1.2826	0.7565	8.8934	0.0332	4.2436	0.0248	4.2684	1.1286	0.0228	1.1514	0.0000	3,002.1899	3,002.1899	0.0524	0.0000	3,003.4996
Total	**1.7231**	**15.3944**	**13.3328**	**0.0854**	**5.5866**	**0.0418**	**5.6284**	**1.5169**	**0.0391**	**1.5560**	**0.0000**	**8,022.7771**	**8,022.7771**	**0.2323**	**0.0000**	**8,028.5834**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.4300	14.4441	4.3529	0.0519	1.3432	0.0167	1.3599	0.3884	0.0160	0.4043	0.0000	4,990.7932	4,990.7932	0.1767	0.0000	4,995.2100
Worker	1.2204	0.6932	8.2988	0.0319	4.2436	0.0241	4.2677	1.1286	0.0222	1.1508	0.0000	2,891.0685	2,891.0685	0.0478	0.0000	2,892.2624
Total	**1.6504**	**15.1372**	**12.6516**	**0.0838**	**5.5867**	**0.0408**	**5.6275**	**1.5170**	**0.0382**	**1.5551**	**0.0000**	**7,881.8618**	**7,881.8618**	**0.2244**	**0.0000**	**7,887.4724**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.4300	14.4441	4.3529	0.0519	1.3432	0.0167	1.3599	0.3884	0.0160	0.4043	0.0000	4,990.7932	4,990.7932	0.1767	0.0000	4,995.2100
Worker	1.2204	0.6932	8.2988	0.0319	4.2436	0.0241	4.2677	1.1286	0.0222	1.1508	0.0000	2,891.0685	2,891.0685	0.0478	0.0000	2,892.2624
Total	**1.6504**	**15.1372**	**12.6516**	**0.0838**	**5.5867**	**0.0408**	**5.6275**	**1.5170**	**0.0382**	**1.5551**	**0.0000**	**7,881.8618**	**7,881.8618**	**0.2244**	**0.0000**	**7,887.4724**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2185**	**292.2185**	**0.0687**	**0.0000**	**293.9358**

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	0.4064	13.7554	4.1336	0.0498	1.2969	0.0158	1.3127	0.3750	0.0151	0.3901	0.0000	4,791.7572	4,791.7572	0.1676	0.0000	4,795.9479
Worker	1.1202	0.6148	7.5010	0.0298	4.0972	0.0221	4.1194	1.0897	0.0204	1.1100	0.0000	2,696.1566	2,696.1566	0.0421	0.0000	2,697.2093

Total	**1.5266**	**14.3701**	**11.6345**	**0.0796**	**5.3941**	**0.0380**	**5.4321**	**1.4647**	**0.0355**	**1.5002**	**0.0000**	**7,487.9138**	**7,487.9138**	**0.2097**	**0.0000**	**7,493.1572**

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	0.0672	1.3749	2.2521	3.4000e-003		0.0107	0.0107		0.0107	0.0107	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355
Total	**0.0672**	**1.3749**	**2.2521**	**3.4000e-003**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**292.2182**	**292.2182**	**0.0687**	**0.0000**	**293.9355**

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	0.4064	13.7554	4.1336	0.0498	1.2969	0.0158	1.3127	0.3750	0.0151	0.3901	0.0000	4,791.7572	4,791.7572	0.1676	0.0000	4,795.9479
Worker	1.1202	0.6148	7.5010	0.0298	4.0972	0.0221	4.1194	1.0897	0.0204	1.1100	0.0000	2,696.1566	2,696.1566	0.0421	0.0000	2,697.2093
Total	**1.5266**	**14.3701**	**11.6345**	**0.0796**	**5.3941**	**0.0380**	**5.4321**	**1.4647**	**0.0355**	**1.5002**	**0.0000**	**7,487.9138**	**7,487.9138**	**0.2097**	**0.0000**	**7,493.1572**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

Mitigated Construction On-Site

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

Off-Road	1.5000e-003	0.0452	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
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-003**	**0.0452**	**0.0778**	**1.0000e-004**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1165**	**121.1165**	**0.0392**	**0.0000**	**122.0958**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

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	0.0202	0.6074	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.6074**	**1.0464**	**1.3800e-003**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**121.1164**	**121.1164**	**0.0392**	**0.0000**	**122.0956**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	23.0449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	**23.0560**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5962**	**16.5962**	**9.1000e-004**	**0.0000**	**16.6188**

Unmitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1094	0.0584	0.7276	2.9800e-003	0.4227	2.1300e-003	0.4249	0.1124	1.9600e-003	0.1144	0.0000	269.5147	269.5147	3.9900e-003	0.0000	269.6144
Total	**0.1094**	**0.0584**	**0.7276**	**2.9800e-003**	**0.4227**	**2.1300e-003**	**0.4249**	**0.1124**	**1.9600e-003**	**0.1144**	**0.0000**	**269.5147**	**269.5147**	**3.9900e-003**	**0.0000**	**269.6144**

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	23.0449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5400e-003	0.0689	0.1191	1.9000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	**23.0484**	**0.0689**	**0.1191**	**1.9000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**16.5961**	**16.5961**	**9.1000e-004**	**0.0000**	**16.6188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1094	0.0584	0.7276	2.9800e-003	0.4227	2.1300e-003	0.4249	0.1124	1.9600e-003	0.1144	0.0000	269.5147	269.5147	3.9900e-003	0.0000	269.6144
Total	**0.1094**	**0.0584**	**0.7276**	**2.9800e-003**	**0.4227**	**2.1300e-003**	**0.4249**	**0.1124**	**1.9600e-003**	**0.1144**	**0.0000**	**269.5147**	**269.5147**	**3.9900e-003**	**0.0000**	**269.6144**

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	6.0034	25.1845	66.0625	0.2728	30.6895	0.1929	30.8824	8.2131	0.1793	8.3924	0.0000	25,099.9844	25,099.9844	0.7432	0.0000	25,118.5638
Unmitigated	6.0034	25.1845	66.0625	0.2728	30.6895	0.1929	30.8824	8.2131	0.1793	8.3924	0.0000	25,099.9844	25,099.9844	0.7432	0.0000	25,118.5638

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,616.00	3,480.00	3184.00	8,164,132	8,164,132
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	20,500.00	4,580.00	1960.00	37,225,521	37,225,521
Hotel	2,352.66	2,359.44	1715.34	4,298,751	4,298,751
Regional Shopping Center	16,878.00	19,788.00	9996.00	28,597,404	28,597,404
User Defined Parking	808.00	808.00	808.00	1,470,560	1,470,560
City Park	471.00	471.00	471.00	1,005,516	1,005,516
Government (Civic Center)	844.20	0.00	0.00	1,152,717	1,152,717
Junior College (2Yr)	116.00	47.20	5.10	229,393	229,393
Racquet Club	239.00	239.00	239.00	406,530	406,530
Total	45,824.86	31,772.64	18,378.44	82,550,523	82,550,523

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
User Defined Parking	5.00	5.00	5.00	0.00	100.00	0.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Racquet Club	9.50	7.30	7.30	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
General Office Building	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Hotel	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
User Defined Parking	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
City Park	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Government (Civic Center)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Junior College (2Yr)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Racquet Club	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.3458	3.1231	2.4914	0.0189		0.2389	0.2389		0.2389	0.2389	0.0000	3,422.0040	3,422.0040	0.0656	0.0627	3,442.3392
NaturalGas Unmitigated	0.3458	3.1231	2.4914	0.0189		0.2389	0.2389		0.2389	0.2389	0.0000	3,422.0040	3,422.0040	0.0656	0.0627	3,442.3392

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	6.91156e+006	0.0373	0.3185	0.1355	2.0300e-003		0.0258	0.0258		0.0258	0.0258	0.0000	368.8272	368.8272	7.0700e-003	6.7600e-003	371.0189
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.274e+007	0.1765	1.6049	1.3481	9.6300e-003		0.1220	0.1220		0.1220	0.1220	0.0000	1,747.1311	1,747.1311	0.0335	0.0320	1,757.5134
Government (Civic Center)	736650	3.9700e-003	0.0361	0.0303	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.3105	39.3105	7.5000e-004	7.2000e-004	39.5441
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Junior College (2Yr)	241300	1.3000e-003	0.0118	9.9400e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	12.8767	12.8767	2.5000e-004	2.4000e-004	12.9532
Racquet Club	263800	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0774	14.0774	2.7000e-004	2.6000e-004	14.1610
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343

User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3458**	**3.1231**	**2.4914**	**0.0189**		**0.2389**	**0.2389**		**0.2389**	**0.2389**	**0.0000**	**3,422.0040**	**3,422.0040**	**0.0656**	**0.0627**	**3,442.3392**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	6.91156e+006	0.0373	0.3185	0.1355	2.0300e-003		0.0258	0.0258		0.0258	0.0258	0.0000	368.8272	368.8272	7.0700e-003	6.7600e-003	371.0189
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.274e+007	0.1765	1.6049	1.3481	9.6300e-003		0.1220	0.1220		0.1220	0.1220	0.0000	1,747.1311	1,747.1311	0.0335	0.0320	1,757.5134
Government (Civic Center)	736650	3.9700e-003	0.0361	0.0303	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.3105	39.3105	7.5000e-004	7.2000e-004	39.5441
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Junior College (2Yr)	241300	1.3000e-003	0.0118	9.9400e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	12.8767	12.8767	2.5000e-004	2.4000e-004	12.9532
Racquet Club	263800	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0774	14.0774	2.7000e-004	2.6000e-004	14.1610
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3458**	**3.1231**	**2.4914**	**0.0189**		**0.2389**	**0.2389**		**0.2389**	**0.2389**	**0.0000**	**3,422.0040**	**3,422.0040**	**0.0656**	**0.0627**	**3,442.3392**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3.30268e+006	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.67005e+007	0.0000	0.0000	0.0000	0.0000
General Office Building	3.566e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	802350	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	79100	0.0000	0.0000	0.0000	0.0000
Racquet Club	82600	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3.30268e+006	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.67005e+007	0.0000	0.0000	0.0000	0.0000

General Office Building	3.566e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	802350	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	79100	0.0000	0.0000	0.0000	0.0000
Racquet Club	82600	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	16.9658	0.0696	6.0667	3.2000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	9.9608	9.9608	9.9600e-003	0.0000	10.2099
Unmitigated	18.2598	0.0972	6.0784	5.0000e-004		0.0356	0.0356		0.0356	0.0356	0.0000	41.9197	41.9197	0.0106	5.9000e-004	42.3586

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	2.3045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	15.7618					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2300e-003	0.0276	0.0117	1.8000e-004		2.2300e-003	2.2300e-003		2.2300e-003	2.2300e-003	0.0000	31.9589	31.9589	6.1000e-004	5.9000e-004	32.1488
Landscaping	0.1904	0.0696	6.0667	3.2000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	9.9608	9.9608	9.9600e-003	0.0000	10.2099
Total	**18.2598**	**0.0972**	**6.0784**	**5.0000e-004**		**0.0356**	**0.0356**		**0.0356**	**0.0356**	**0.0000**	**41.9197**	**41.9197**	**0.0106**	**5.9000e-004**	**42.3586**

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	1.0137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	15.7618					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1904	0.0696	6.0667	3.2000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	9.9608	9.9608	9.9600e-003	0.0000	10.2099
Total	**16.9658**	**0.0696**	**6.0667**	**3.2000e-004**		**0.0334**	**0.0334**		**0.0334**	**0.0334**	**0.0000**	**9.9608**	**9.9608**	**9.9600e-003**	**0.0000**	**10.2099**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	149.3172	15.3363	0.3621	640.6376
Unmitigated	149.3172	15.3363	0.3621	640.6376

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	52.1232 / 32.8603	16.5363	1.6984	0.0401	70.9481
City Park	0 / 35.7444	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	355.467 / 217.867	112.7734	11.5829	0.2735	483.8486
Government (Civic Center)	8.93969 / 5.47916	2.8362	0.2913	6.8800e-003	12.1684
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051

Junior College (2Yr)	0.49049 / 0.767177	0.1556	0.0160	3.8000e-004	0.6676
Racquet Club	0.591431 / 0.36249	0.1876	0.0193	4.6000e-004	0.8050
Regional Shopping Center	44.4435 / 27.2396	14.0999	1.4482	0.0342	60.4948
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**149.3172**	**15.3363**	**0.3621**	**640.6376**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	52.1232 / 32.8603	16.5363	1.6984	0.0401	70.9481
City Park	0 / 35.7444	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	355.467 / 217.867	112.7734	11.5829	0.2735	483.8486
Government (Civic Center)	8.93969 / 5.47916	2.8362	0.2913	6.8800e-003	12.1684
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051
Junior College (2Yr)	0.49049 / 0.767177	0.1556	0.0160	3.8000e-004	0.6676
Racquet Club	0.591431 / 0.36249	0.1876	0.0193	4.6000e-004	0.8050
Regional Shopping Center	44.4435 / 27.2396	14.0999	1.4482	0.0342	60.4948
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**149.3172**	**15.3363**	**0.3621**	**640.6376**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	684.6236	40.4601	0.0000	1,696.1259
Unmitigated	684.6236	40.4601	0.0000	1,696.1259

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	368	74.7007	4.4147	0.0000	185.0678
City Park	2.58	0.5237	0.0310	0.0000	1.2975
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1860	377.5632	22.3134	0.0000	935.3968
Government (Civic Center)	256.5	52.0672	3.0771	0.0000	128.9942
Hotel	185.6	37.6751	2.2265	0.0000	93.3385

Junior College (2Yr)	13	2.6389	0.1560	0.0000	6.5377
Racquet Club	57	11.5705	0.6838	0.0000	28.6654
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**684.6236**	**40.4601**	**0.0000**	**1,696.1259**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	368	74.7007	4.4147	0.0000	185.0678
City Park	2.58	0.5237	0.0310	0.0000	1.2975
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1860	377.5632	22.3134	0.0000	935.3968
Government (Civic Center)	256.5	52.0672	3.0771	0.0000	128.9942
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Junior College (2Yr)	13	2.6389	0.1560	0.0000	6.5377
Racquet Club	57	11.5705	0.6838	0.0000	28.6654
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**684.6236**	**40.4601**	**0.0000**	**1,696.1259**

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

Vallco, Cupertino - Proposed Project - Santa Clara County, Annual

Vallco, Cupertino - Proposed Project, Construction TAC

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	2,000.00	1000sqft	58.00	2,000,000.00	0
Enclosed Parking with Elevator	11,391.00	Space	0.00	4,556,400.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	800.00	Dwelling Unit	0.00	800,000.00	2288
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0
City Park	30.00	Acre	0.00	1,306,800.00	0
Government (Civic Center)	45.00	1000sqft	0.00	45,000.00	0
Racquet Club	10.00	1000sqft	0.00	10,000.00	0
Junior College (2Yr)	10.00	1000sqft	0.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT - one mile trip length to calculate risk from on- and near-site vehicle travel

Demolition - 2,170,350 sf demo

Grading - 2,000,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - Low VOC paint, no hearth

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	120.00	256.00
tblFireplaces	NumberWood	136.00	0.00
tblGrading	MaterialExported	0.00	2,000,000.00
tblLandUse	LotAcreage	45.91	58.00
tblLandUse	LotAcreage	102.52	0.00
tblLandUse	LotAcreage	11.30	0.00

tblLandUse	LotAcreage	21.05	0.00
tblLandUse	LotAcreage	13.77	0.00
tblLandUse	LotAcreage	30.00	0.00
tblLandUse	LotAcreage	1.03	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	0.23	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
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
tblVehicleTrips	CC_TL	7.30	5.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	5.00

tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.39	4.35
tblVehicleTrips	ST_TR	2.46	2.29
tblVehicleTrips	ST_TR	8.19	6.96
tblVehicleTrips	ST_TR	49.97	32.98
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	ST_TR	22.75	15.70
tblVehicleTrips	ST_TR	11.23	4.72
tblVehicleTrips	ST_TR	21.35	23.90
tblVehicleTrips	SU_TR	5.86	3.98
tblVehicleTrips	SU_TR	1.05	0.98
tblVehicleTrips	SU_TR	5.95	5.06
tblVehicleTrips	SU_TR	25.24	16.66
tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	SU_TR	16.74	15.70
tblVehicleTrips	SU_TR	1.21	0.51
tblVehicleTrips	SU_TR	17.40	23.90
tblVehicleTrips	WD_TR	6.65	4.52
tblVehicleTrips	WD_TR	11.03	10.25
tblVehicleTrips	WD_TR	8.17	6.94
tblVehicleTrips	WD_TR	42.70	28.13
tblVehicleTrips	WD_TR	0.00	808.00
tblVehicleTrips	WD_TR	1.89	15.70
tblVehicleTrips	WD_TR	27.92	18.76
tblVehicleTrips	WD_TR	27.49	11.60
tblVehicleTrips	WD_TR	14.03	23.90
tblWoodstoves	NumberCatalytic	16.00	0.00
tblWoodstoves	NumberNoncatalytic	16.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00

tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6261	9.9774	3.9340	0.0112	2.3805	0.2787	2.6591	0.7041	0.2578	0.9619	0.0000	1,043.3215	1,043.3215	0.2141	0.0000	1,048.6743
2020	1.1203	20.7460	8.4004	0.0289	1.1425	0.2371	1.3796	0.3662	0.2204	0.5865	0.0000	2,713.8715	2,713.8715	0.3647	0.0000	2,722.9889
2021	1.1340	15.4900	8.8196	0.0251	0.5863	0.1413	0.7276	0.1614	0.1329	0.2943	0.0000	2,345.4805	2,345.4805	0.2400	0.0000	2,351.4811
2022	1.0343	14.7468	8.2267	0.0247	0.5841	0.1198	0.7038	0.1608	0.1127	0.2735	0.0000	2,307.0373	2,307.0373	0.2277	0.0000	2,312.7286
2023	0.9078	12.6604	7.6164	0.0239	0.5841	0.1004	0.6845	0.1608	0.0945	0.2553	0.0000	2,238.2956	2,238.2956	0.1966	0.0000	2,243.2109
2024	0.8556	12.5148	7.3100	0.0237	0.5886	0.0896	0.6782	0.1620	0.0843	0.2463	0.0000	2,223.5655	2,223.5655	0.1922	0.0000	2,228.3702
2025	0.7996	12.2268	6.9759	0.0233	0.5863	0.0779	0.6642	0.1614	0.0732	0.2346	0.0000	2,184.7737	2,184.7737	0.1859	0.0000	2,189.4214
2026	0.7662	12.1220	6.7380	0.0230	0.5863	0.0776	0.6639	0.1614	0.0729	0.2344	0.0000	2,158.0349	2,158.0349	0.1814	0.0000	2,162.5689
2027	0.7149	11.6490	6.3755	0.0221	0.5662	0.0765	0.6426	0.1559	0.0718	0.2277	0.0000	2,070.0305	2,070.0305	0.1740	0.0000	2,074.3794
2028	23.1438	0.6051	1.1768	1.9400e-003	0.0403	0.0291	0.0694	0.0108	0.0271	0.0378	0.0000	170.5794	170.5794	0.0409	0.0000	171.6007
Maximum	**23.1438**	**20.7460**	**8.8196**	**0.0289**	**2.3805**	**0.2787**	**2.6591**	**0.7041**	**0.2578**	**0.9619**	**0.0000**	**2,713.8715**	**2,713.8715**	**0.3647**	**0.0000**	**2,722.9889**

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					
2019	0.1950	6.2956	4.2275	0.0112	0.6083	0.0148	0.6230	0.1772	0.0145	0.1917	0.0000	1,043.3209	1,043.3209	0.2141	0.0000	1,048.6737
2020	0.7930	18.2010	8.7759	0.0289	0.5668	0.0348	0.6016	0.1672	0.0337	0.2009	0.0000	2,713.8709	2,713.8709	0.3647	0.0000	2,722.9883
2021	0.9555	14.6391	8.9891	0.0251	0.5863	0.0273	0.6136	0.1614	0.0264	0.1878	0.0000	2,345.4802	2,345.4802	0.2400	0.0000	2,351.4807
2022	0.8819	14.1354	8.4230	0.0247	0.5841	0.0256	0.6096	0.1608	0.0248	0.1855	0.0000	2,307.0369	2,307.0369	0.2277	0.0000	2,312.7282
2023	0.7727	12.2090	7.8283	0.0239	0.5841	0.0205	0.6045	0.1608	0.0199	0.1807	0.0000	2,238.2953	2,238.2953	0.1966	0.0000	2,243.2106
2024	0.7327	12.1832	7.5336	0.0237	0.5886	0.0204	0.6089	0.1620	0.0198	0.1818	0.0000	2,223.5651	2,223.5651	0.1922	0.0000	2,228.3698
2025	0.6908	12.0235	7.2094	0.0233	0.5863	0.0201	0.6064	0.1614	0.0195	0.1809	0.0000	2,184.7733	2,184.7733	0.1859	0.0000	2,189.4211
2026	0.6574	11.9187	6.9714	0.0230	0.5863	0.0198	0.6061	0.1614	0.0192	0.1806	0.0000	2,158.0346	2,158.0346	0.1814	0.0000	2,162.5686
2027	0.6072	11.4594	6.6132	0.0221	0.5662	0.0189	0.5851	0.1559	0.0184	0.1743	0.0000	2,070.0301	2,070.0301	0.1740	0.0000	2,074.3790
2028	23.1011	0.6877	1.3428	1.9400e-003	0.0403	2.9700e-003	0.0433	0.0108	2.9400e-003	0.0137	0.0000	170.5793	170.5793	0.0409	0.0000	171.6005
Maximum	**23.1011**	**18.2010**	**8.9891**	**0.0289**	**0.6083**	**0.0348**	**0.6230**	**0.1772**	**0.0337**	**0.2009**	**0.0000**	**2,713.8709**	**2,713.8709**	**0.3647**	**0.0000**	**2,722.9883**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.52**	**7.32**	**-3.57**	**0.00**	**30.71**	**83.31**	**37.99**	**32.92**	**82.66**	**49.95**	**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	**1-1-2019**	**3-31-2019**	1.5268	0.7182
2	**4-1-2019**	**6-30-2019**	1.5511	0.7336
3	**7-1-2019**	**9-30-2019**	1.6402	0.4271
4	**10-1-2019**	**12-31-2019**	5.8523	4.5834
5	**1-1-2020**	**3-31-2020**	6.3974	5.2805
6	**4-1-2020**	**6-30-2020**	6.5008	5.3927
7	**7-1-2020**	**9-30-2020**	4.4935	4.1695

8	**10-1-2020**	**12-31-2020**	4.4161	4.0921
9	**1-1-2021**	**3-31-2021**	4.0607	3.8072
10	**4-1-2021**	**6-30-2021**	4.1808	3.9244
11	**7-1-2021**	**9-30-2021**	4.2267	3.9676
12	**10-1-2021**	**12-31-2021**	4.1509	3.8918
13	**1-1-2022**	**3-31-2022**	3.8689	3.6800
14	**4-1-2022**	**6-30-2022**	3.9844	3.7934
15	**7-1-2022**	**9-30-2022**	4.0282	3.8351
16	**10-1-2022**	**12-31-2022**	3.9548	3.7618
17	**1-1-2023**	**3-31-2023**	3.3327	3.1876
18	**4-1-2023**	**6-30-2023**	3.4247	3.2780
19	**7-1-2023**	**9-30-2023**	3.4623	3.3140
20	**10-1-2023**	**12-31-2023**	3.4067	3.2585
21	**1-1-2024**	**3-31-2024**	3.2946	3.1819
22	**4-1-2024**	**6-30-2024**	3.3484	3.2356
23	**7-1-2024**	**9-30-2024**	3.3852	3.2712
24	**10-1-2024**	**12-31-2024**	3.3308	3.2168
25	**1-1-2025**	**3-31-2025**	3.1862	3.1094
26	**4-1-2025**	**6-30-2025**	3.2744	3.1967
27	**7-1-2025**	**9-30-2025**	3.3104	3.2318
28	**10-1-2025**	**12-31-2025**	3.2570	3.1785
29	**1-1-2026**	**3-31-2026**	3.1522	3.0754
30	**4-1-2026**	**6-30-2026**	3.2390	3.1613
31	**7-1-2026**	**9-30-2026**	3.2746	3.1960
32	**10-1-2026**	**12-31-2026**	3.2223	3.1437
33	**1-1-2027**	**3-31-2027**	3.1210	3.0441
34	**4-1-2027**	**6-30-2027**	3.2065	3.1287
35	**7-1-2027**	**9-30-2027**	3.2417	3.1631
36	**10-1-2027**	**12-31-2027**	2.8462	2.7805
37	**1-1-2028**	**3-31-2028**	0.3090	0.3375

38	**4-1-2028**	**6-30-2028**	1.6727	1.6970
39	**7-1-2028**	**9-30-2028**	11.7174	11.7108
		Highest	11.7174	11.7108

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 1,620,000; Residential Outdoor: 540,000; Non-Residential Indoor: 4,735,842; Non-Residential Outdoor: 1,578,614;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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	9,872.00	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	8	20.00	0.00	250,000.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	4,100.00	1,564.00	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	820.00	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

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**1.0682**	**0.1167**	**1.1849**	**0.1617**	**0.1085**	**0.2703**	**0.0000**	**225.0711**	**225.0711**	**0.0626**	**0.0000**	**226.6365**

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	0.0120	0.5288	0.0882	6.6000e-004	4.2800e-003	6.7000e-004	4.9500e-003	1.1900e-003	6.4000e-004	1.8300e-003	0.0000	63.9471	63.9471	7.4700e-003	0.0000	64.1339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-003	5.7000e-004	7.2000e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8179	0.8179	4.0000e-005	0.0000	0.8188
Total	**0.0132**	**0.5293**	**0.0954**	**6.7000e-004**	**5.0000e-003**	**6.8000e-004**	**5.6800e-003**	**1.3800e-003**	**6.5000e-004**	**2.0300e-003**	**0.0000**	**64.7650**	**64.7650**	**7.5100e-003**	**0.0000**	**64.9527**

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					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0380	0.8812	1.6038	2.5200e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	**0.0380**	**0.8812**	**1.6038**	**2.5200e-003**	**0.2403**	**4.0100e-003**	**0.2444**	**0.0364**	**4.0100e-003**	**0.0404**	**0.0000**	**225.0709**	**225.0709**	**0.0626**	**0.0000**	**226.6362**

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	0.0120	0.5288	0.0882	6.6000e-004	4.2800e-003	6.7000e-004	4.9500e-003	1.1900e-003	6.4000e-004	1.8300e-003	0.0000	63.9471	63.9471	7.4700e-003	0.0000	64.1339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-003	5.7000e-004	7.2000e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8179	0.8179	4.0000e-005	0.0000	0.8188
Total	**0.0132**	**0.5293**	**0.0954**	**6.7000e-004**	**5.0000e-003**	**6.8000e-004**	**5.6800e-003**	**1.3800e-003**	**6.5000e-004**	**2.0300e-003**	**0.0000**	**64.7650**	**64.7650**	**7.5100e-003**	**0.0000**	**64.9527**

3.3 Site Preparation - 2019

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					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.7046**	**0.0932**	**0.7978**	**0.3873**	**0.0858**	**0.4731**	**0.0000**	**133.2579**	**133.2579**	**0.0422**	**0.0000**	**134.3119**

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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	**8.6000e-004**	**4.1000e-004**	**5.1900e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.5889**	**0.5889**	**3.0000e-005**	**0.0000**	**0.5896**

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.4743	0.8954	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	**0.0272**	**0.4743**	**0.8954**	**1.4800e-003**	**0.1585**	**2.4200e-003**	**0.1610**	**0.0871**	**2.4200e-003**	**0.0896**	**0.0000**	**133.2577**	**133.2577**	**0.0422**	**0.0000**	**134.3118**

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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	**8.6000e-004**	**4.1000e-004**	**5.1900e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.5889**	**0.5889**	**3.0000e-005**	**0.0000**	**0.5896**

3.4 Grading - 2019

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					0.5139	0.0000	0.5139	0.1309	0.0000	0.1309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.5139**	**0.0631**	**0.5771**	**0.1309**	**0.0581**	**0.1890**	**0.0000**	**147.6085**	**147.6085**	**0.0467**	**0.0000**	**148.7760**

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	0.0884	3.8993	0.6506	4.8800e-003	0.0878	4.9400e-003	0.0928	0.0226	4.7300e-003	0.0273	0.0000	471.5855	471.5855	0.0551	0.0000	472.9625

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.1000e-004	3.9200e-003	0.0000	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4446	0.4446	2.0000e-005	0.0000	0.4451
Total	**0.0890**	**3.8997**	**0.6545**	**4.8800e-003**	**0.0882**	**4.9500e-003**	**0.0932**	**0.0227**	**4.7400e-003**	**0.0274**	**0.0000**	**472.0301**	**472.0301**	**0.0551**	**0.0000**	**473.4076**

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					0.1156	0.0000	0.1156	0.0295	0.0000	0.0295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.5107	0.9732	1.6400e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	**0.0268**	**0.5107**	**0.9732**	**1.6400e-003**	**0.1156**	**2.6900e-003**	**0.1183**	**0.0295**	**2.6900e-003**	**0.0321**	**0.0000**	**147.6083**	**147.6083**	**0.0467**	**0.0000**	**148.7759**

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	0.0884	3.8993	0.6506	4.8800e-003	0.0878	4.9400e-003	0.0928	0.0226	4.7300e-003	0.0273	0.0000	471.5855	471.5855	0.0551	0.0000	472.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.1000e-004	3.9200e-003	0.0000	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4446	0.4446	2.0000e-005	0.0000	0.4451
Total	**0.0890**	**3.8997**	**0.6545**	**4.8800e-003**	**0.0882**	**4.9500e-003**	**0.0932**	**0.0227**	**4.7400e-003**	**0.0274**	**0.0000**	**472.0301**	**472.0301**	**0.0551**	**0.0000**	**473.4076**

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					0.7428	0.0000	0.7428	0.2567	0.0000	0.2567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.7428**	**0.1402**	**0.8830**	**0.2567**	**0.1290**	**0.3857**	**0.0000**	**351.4237**	**351.4237**	**0.1137**	**0.0000**	**354.2651**

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	0.1924	9.1376	1.4917	0.0119	0.1000	8.6000e-003	0.1086	0.0270	8.2300e-003	0.0352	0.0000	1,150.7217	1,150.7217	0.1224	0.0000	1,153.7818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	**0.1939**	**9.1382**	**1.5002**	**0.0119**	**0.1009**	**8.6100e-003**	**0.1096**	**0.0272**	**8.2400e-003**	**0.0355**	**0.0000**	**1,151.7707**	**1,151.7707**	**0.1225**	**0.0000**	**1,154.8319**

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					0.1671	0.0000	0.1671	0.0578	0.0000	0.0578	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0652	1.2430	2.3686	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	**0.0652**	**1.2430**	**2.3686**	**4.0000e-003**	**0.1671**	**6.5500e-003**	**0.1737**	**0.0578**	**6.5500e-003**	**0.0643**	**0.0000**	**351.4233**	**351.4233**	**0.1137**	**0.0000**	**354.2647**

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	0.1924	9.1376	1.4917	0.0119	0.1000	8.6000e-003	0.1086	0.0270	8.2300e-003	0.0352	0.0000	1,150.7217	1,150.7217	0.1224	0.0000	1,153.7818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	**0.1939**	**9.1382**	**1.5002**	**0.0119**	**0.1009**	**8.6100e-003**	**0.1096**	**0.0272**	**8.2400e-003**	**0.0355**	**0.0000**	**1,151.7707**	**1,151.7707**	**0.1225**	**0.0000**	**1,154.8319**

3.5 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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600

Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0206**	**154.0206**	**0.0376**	**0.0000**	**154.9600**

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	0.1964	6.9558	1.9306	8.7000e-003	0.0961	0.0112	0.1073	0.0280	0.0107	0.0388	0.0000	834.9364	834.9364	0.0815	0.0000	836.9732
Worker	0.3020	0.1383	1.7878	2.4700e-003	0.2027	2.7800e-003	0.2054	0.0542	2.5500e-003	0.0568	0.0000	221.7201	221.7201	9.5400e-003	0.0000	221.9586
Total	**0.4984**	**7.0941**	**3.7185**	**0.0112**	**0.2988**	**0.0140**	**0.3128**	**0.0822**	**0.0133**	**0.0955**	**0.0000**	**1,056.6565**	**1,056.6565**	**0.0910**	**0.0000**	**1,058.9318**

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	0.0355	0.7257	1.1886	1.7900e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	**0.0355**	**0.7257**	**1.1886**	**1.7900e-003**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**154.0205**	**154.0205**	**0.0376**	**0.0000**	**154.9598**

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	0.1964	6.9558	1.9306	8.7000e-003	0.0961	0.0112	0.1073	0.0280	0.0107	0.0388	0.0000	834.9364	834.9364	0.0815	0.0000	836.9732
Worker	0.3020	0.1383	1.7878	2.4700e-003	0.2027	2.7800e-003	0.2054	0.0542	2.5500e-003	0.0568	0.0000	221.7201	221.7201	9.5400e-003	0.0000	221.9586
Total	**0.4984**	**7.0941**	**3.7185**	**0.0112**	**0.2988**	**0.0140**	**0.3128**	**0.0822**	**0.0133**	**0.0955**	**0.0000**	**1,056.6565**	**1,056.6565**	**0.0910**	**0.0000**	**1,058.9318**

3.5 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.3444	12.9759	3.4950	0.0169	0.1886	0.0109	0.1995	0.0550	0.0104	0.0654	0.0000	1,622.8615	1,622.8615	0.1506	0.0000	1,626.6255
Worker	0.5416	0.2392	3.1616	4.6800e-003	0.3977	5.3300e-003	0.4030	0.1064	4.9000e-003	0.1113	0.0000	420.3324	420.3324	0.0165	0.0000	420.7457
Total	**0.8859**	**13.2151**	**6.6566**	**0.0216**	**0.5863**	**0.0162**	**0.6025**	**0.1614**	**0.0153**	**0.1767**	**0.0000**	**2,043.1939**	**2,043.1939**	**0.1671**	**0.0000**	**2,047.3712**

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	0.0696	1.4240	2.3325	3.5100e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.0696**	**1.4240**	**2.3325**	**3.5100e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.3444	12.9759	3.4950	0.0169	0.1886	0.0109	0.1995	0.0550	0.0104	0.0654	0.0000	1,622.8615	1,622.8615	0.1506	0.0000	1,626.6255

Worker	0.5416	0.2392	3.1616	4.6800e-003	0.3977	5.3300e-003	0.4030	0.1064	4.9000e-003	0.1113	0.0000	420.3324	420.3324	0.0165	0.0000	420.7457
Total	**0.8859**	**13.2151**	**6.6566**	**0.0216**	**0.5863**	**0.0162**	**0.6025**	**0.1614**	**0.0153**	**0.1767**	**0.0000**	**2,043.1939**	**2,043.1939**	**0.1671**	**0.0000**	**2,047.3712**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.3175	12.5058	3.2461	0.0167	0.1879	9.3800e-003	0.1972	0.0548	8.9600e-003	0.0638	0.0000	1,602.0137	1,602.0137	0.1409	0.0000	1,605.5362
Worker	0.4950	0.2110	2.8533	4.4900e-003	0.3962	5.2100e-003	0.4014	0.1060	4.7900e-003	0.1108	0.0000	403.7808	403.7808	0.0146	0.0000	404.1453
Total	**0.8125**	**12.7168**	**6.0994**	**0.0212**	**0.5841**	**0.0146**	**0.5986**	**0.1608**	**0.0138**	**0.1745**	**0.0000**	**2,005.7945**	**2,005.7945**	**0.1555**	**0.0000**	**2,009.6816**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.3175	12.5058	3.2461	0.0167	0.1879	9.3800e-003	0.1972	0.0548	8.9600e-003	0.0638	0.0000	1,602.0137	1,602.0137	0.1409	0.0000	1,605.5362
Worker	0.4950	0.2110	2.8533	4.4900e-003	0.3962	5.2100e-003	0.4014	0.1060	4.7900e-003	0.1108	0.0000	403.7808	403.7808	0.0146	0.0000	404.1453
Total	**0.8125**	**12.7168**	**6.0994**	**0.0212**	**0.5841**	**0.0146**	**0.5986**	**0.1608**	**0.0138**	**0.1745**	**0.0000**	**2,005.7945**	**2,005.7945**	**0.1555**	**0.0000**	**2,009.6816**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

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	0.2478	10.6028	2.9128	0.0161	0.1879	4.3500e-003	0.1922	0.0548	4.1500e-003	0.0590	0.0000	1,548.2693	1,548.2693	0.1120	0.0000	1,551.0693
Worker	0.4556	0.1876	2.5919	4.3200e-003	0.3962	5.1300e-003	0.4013	0.1060	4.7200e-003	0.1107	0.0000	388.6802	388.6802	0.0129	0.0000	389.0033
Total	**0.7034**	**10.7904**	**5.5047**	**0.0204**	**0.5841**	**9.4800e-003**	**0.5935**	**0.1608**	**8.8700e-003**	**0.1697**	**0.0000**	**1,936.9495**	**1,936.9495**	**0.1249**	**0.0000**	**1,940.0726**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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	0.2478	10.6028	2.9128	0.0161	0.1879	4.3500e-003	0.1922	0.0548	4.1500e-003	0.0590	0.0000	1,548.2693	1,548.2693	0.1120	0.0000	1,551.0693
Worker	0.4556	0.1876	2.5919	4.3200e-003	0.3962	5.1300e-003	0.4013	0.1060	4.7200e-003	0.1107	0.0000	388.6802	388.6802	0.0129	0.0000	389.0033
Total	**0.7034**	**10.7904**	**5.5047**	**0.0204**	**0.5841**	**9.4800e-003**	**0.5935**	**0.1608**	**8.8700e-003**	**0.1697**	**0.0000**	**1,936.9495**	**1,936.9495**	**0.1249**	**0.0000**	**1,940.0726**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.2382	10.5847	2.7987	0.0160	0.1893	4.1900e-003	0.1935	0.0552	4.0000e-003	0.0592	0.0000	1,543.3536	1,543.3536	0.1088	0.0000	1,546.0726
Worker	0.4246	0.1689	2.3934	4.1800e-003	0.3992	5.1000e-003	0.4043	0.1068	4.6900e-003	0.1115	0.0000	376.4896	376.4896	0.0116	0.0000	376.7797
Total	**0.6628**	**10.7537**	**5.1922**	**0.0202**	**0.5886**	**9.2900e-003**	**0.5979**	**0.1620**	**8.6900e-003**	**0.1707**	**0.0000**	**1,919.8432**	**1,919.8432**	**0.1204**	**0.0000**	**1,922.8523**

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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	0.2382	10.5847	2.7987	0.0160	0.1893	4.1900e-003	0.1935	0.0552	4.0000e-003	0.0592	0.0000	1,543.3536	1,543.3536	0.1088	0.0000	1,546.0726
Worker	0.4246	0.1689	2.3934	4.1800e-003	0.3992	5.1000e-003	0.4043	0.1068	4.6900e-003	0.1115	0.0000	376.4896	376.4896	0.0116	0.0000	376.7797
Total	**0.6628**	**10.7537**	**5.1922**	**0.0202**	**0.5886**	**9.2900e-003**	**0.5979**	**0.1620**	**8.6900e-003**	**0.1707**	**0.0000**	**1,919.8432**	**1,919.8432**	**0.1204**	**0.0000**	**1,922.8523**

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.2280	10.4483	2.6877	0.0158	0.1886	3.9900e-003	0.1926	0.0550	3.8100e-003	0.0588	0.0000	1,522.0569	1,522.0569	0.1044	0.0000	1,524.6673
Worker	0.3931	0.1512	2.1892	4.0000e-003	0.3977	5.0300e-003	0.4027	0.1064	4.6200e-003	0.1110	0.0000	360.0619	360.0619	0.0104	0.0000	360.3206

Total	**0.6211**	**10.5995**	**4.8769**	**0.0198**	**0.5863**	**9.0200e-003**	**0.5954**	**0.1614**	**8.4300e-003**	**0.1699**	**0.0000**	**1,882.1188**	**1,882.1188**	**0.1148**	**0.0000**	**1,884.9879**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.2280	10.4483	2.6877	0.0158	0.1886	3.9900e-003	0.1926	0.0550	3.8100e-003	0.0588	0.0000	1,522.0569	1,522.0569	0.1044	0.0000	1,524.6673
Worker	0.3931	0.1512	2.1892	4.0000e-003	0.3977	5.0300e-003	0.4027	0.1064	4.6200e-003	0.1110	0.0000	360.0619	360.0619	0.0104	0.0000	360.3206
Total	**0.6211**	**10.5995**	**4.8769**	**0.0198**	**0.5863**	**9.0200e-003**	**0.5954**	**0.1614**	**8.4300e-003**	**0.1699**	**0.0000**	**1,882.1188**	**1,882.1188**	**0.1148**	**0.0000**	**1,884.9879**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.2205	10.3578	2.6154	0.0156	0.1886	3.8200e-003	0.1924	0.0550	3.6400e-003	0.0587	0.0000	1,508.6001	1,508.6001	0.1009	0.0000	1,511.1224
Worker	0.3672	0.1369	2.0235	3.8500e-003	0.3977	4.9300e-003	0.4026	0.1064	4.5300e-003	0.1109	0.0000	346.7799	346.7799	9.3300e-003	0.0000	347.0130
Total	**0.5878**	**10.4947**	**4.6389**	**0.0195**	**0.5863**	**8.7500e-003**	**0.5951**	**0.1614**	**8.1700e-003**	**0.1696**	**0.0000**	**1,855.3800**	**1,855.3800**	**0.1102**	**0.0000**	**1,858.1354**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.2205	10.3578	2.6154	0.0156	0.1886	3.8200e-003	0.1924	0.0550	3.6400e-003	0.0587	0.0000	1,508.6001	1,508.6001	0.1009	0.0000	1,511.1224
Worker	0.3672	0.1369	2.0235	3.8500e-003	0.3977	4.9300e-003	0.4026	0.1064	4.5300e-003	0.1109	0.0000	346.7799	346.7799	9.3300e-003	0.0000	347.0130
Total	**0.5878**	**10.4947**	**4.6389**	**0.0195**	**0.5863**	**8.7500e-003**	**0.5951**	**0.1614**	**8.1700e-003**	**0.1696**	**0.0000**	**1,855.3800**	**1,855.3800**	**0.1102**	**0.0000**	**1,858.1354**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2185**	**292.2185**	**0.0687**	**0.0000**	**293.9358**

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	0.2071	9.9192	2.4705	0.0150	0.1821	3.5300e-003	0.1857	0.0531	3.3700e-003	0.0565	0.0000	1,445.3860	1,445.3860	0.0942	0.0000	1,447.7414
Worker	0.3314	0.1200	1.8125	3.5900e-003	0.3840	4.5700e-003	0.3886	0.1027	4.2000e-003	0.1069	0.0000	323.3751	323.3751	8.1300e-003	0.0000	323.5784
Total	**0.5385**	**10.0392**	**4.2830**	**0.0186**	**0.5661**	**8.1000e-003**	**0.5742**	**0.1559**	**7.5700e-003**	**0.1634**	**0.0000**	**1,768.7610**	**1,768.7610**	**0.1024**	**0.0000**	**1,771.3198**

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	0.0672	1.3749	2.2521	3.4000e-003		0.0107	0.0107		0.0107	0.0107	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355
Total	**0.0672**	**1.3749**	**2.2521**	**3.4000e-003**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**292.2182**	**292.2182**	**0.0687**	**0.0000**	**293.9355**

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	0.2071	9.9192	2.4705	0.0150	0.1821	3.5300e-003	0.1857	0.0531	3.3700e-003	0.0565	0.0000	1,445.3860	1,445.3860	0.0942	0.0000	1,447.7414
Worker	0.3314	0.1200	1.8125	3.5900e-003	0.3840	4.5700e-003	0.3886	0.1027	4.2000e-003	0.1069	0.0000	323.3751	323.3751	8.1300e-003	0.0000	323.5784
Total	**0.5385**	**10.0392**	**4.2830**	**0.0186**	**0.5661**	**8.1000e-003**	**0.5742**	**0.1559**	**7.5700e-003**	**0.1634**	**0.0000**	**1,768.7610**	**1,768.7610**	**0.1024**	**0.0000**	**1,771.3198**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0423**	**0.0423**	**0.0000**	**0.0000**	**0.0423**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5000e-003	0.0452	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
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-003**	**0.0452**	**0.0778**	**1.0000e-004**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0423**	**0.0423**	**0.0000**	**0.0000**	**0.0423**

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1165**	**121.1165**	**0.0392**	**0.0000**	**122.0958**

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	**5.4000e-004**	**1.9000e-004**	**2.9700e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.5502**	**0.5502**	**1.0000e-005**	**0.0000**	**0.5506**

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	0.0202	0.6074	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.6074**	**1.0464**	**1.3800e-003**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**121.1164**	**121.1164**	**0.0392**	**0.0000**	**122.0956**

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	**5.4000e-004**	**1.9000e-004**	**2.9700e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.5502**	**0.5502**	**1.0000e-005**	**0.0000**	**0.5506**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	23.0449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	**23.0560**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5962**	**16.5962**	**9.1000e-004**	**0.0000**	**16.6188**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0319	0.0113	0.1743	3.6000e-004	0.0396	4.4000e-004	0.0401	0.0106	4.1000e-004	0.0110	0.0000	32.3166	32.3166	7.6000e-004	0.0000	32.3356
Total	**0.0319**	**0.0113**	**0.1743**	**3.6000e-004**	**0.0396**	**4.4000e-004**	**0.0401**	**0.0106**	**4.1000e-004**	**0.0110**	**0.0000**	**32.3166**	**32.3166**	**7.6000e-004**	**0.0000**	**32.3356**

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	23.0449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5400e-003	0.0689	0.1191	1.9000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	**23.0484**	**0.0689**	**0.1191**	**1.9000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**16.5961**	**16.5961**	**9.1000e-004**	**0.0000**	**16.6188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0319	0.0113	0.1743	3.6000e-004	0.0396	4.4000e-004	0.0401	0.0106	4.1000e-004	0.0110	0.0000	32.3166	32.3166	7.6000e-004	0.0000	32.3356
Total	**0.0319**	**0.0113**	**0.1743**	**3.6000e-004**	**0.0396**	**4.4000e-004**	**0.0401**	**0.0106**	**4.1000e-004**	**0.0110**	**0.0000**	**32.3166**	**32.3166**	**7.6000e-004**	**0.0000**	**32.3356**

Vallco, Cupertino - Max Res - Santa Clara County, Annual

Vallco, Cupertino - Max Res

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	1,000.00	1000sqft	58.00	1,000,000.00	0
Enclosed Parking with Elevator	11,562.00	Space	0.00	4,624,800.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	2,640.00	Dwelling Unit	0.00	2,640,000.00	7550
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0
City Park	30.00	Acre	0.00	1,306,800.00	0
Government (Civic Center)	45.00	1000sqft	0.00	45,000.00	0
Racquet Club	10.00	1000sqft	0.00	10,000.00	0
Junior College (2Yr)	10.00	1000sqft	0.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free electricity

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT -

Demolition - 2,170,350 sf demo

Grading - 2,000,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - low VOC paint (50 g/L), no hearth

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	396.00	844.80
tblFireplaces	NumberWood	448.80	0.00
tblGrading	MaterialExported	0.00	2,000,000.00
tblLandUse	LotAcreage	22.96	58.00
tblLandUse	LotAcreage	104.06	0.00
tblLandUse	LotAcreage	11.30	0.00

tblLandUse	LotAcreage	69.47	0.00
tblLandUse	LotAcreage	13.77	0.00
tblLandUse	LotAcreage	30.00	0.00
tblLandUse	LotAcreage	1.03	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	0.23	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	CC_TL	7.30	5.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	5.00
tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.39	4.15
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	8.19	6.72
tblVehicleTrips	ST_TR	49.97	31.48
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	ST_TR	22.75	15.13
tblVehicleTrips	ST_TR	11.23	4.60
tblVehicleTrips	ST_TR	21.35	23.00
tblVehicleTrips	SU_TR	5.86	3.81
tblVehicleTrips	SU_TR	1.05	0.95
tblVehicleTrips	SU_TR	5.95	4.88
tblVehicleTrips	SU_TR	25.24	15.90
tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	SU_TR	16.74	15.13
tblVehicleTrips	SU_TR	1.21	0.50
tblVehicleTrips	SU_TR	17.40	23.00

tblVehicleTrips	WD_TR	6.65	4.35
tblVehicleTrips	WD_TR	11.03	9.88
tblVehicleTrips	WD_TR	8.17	6.69
tblVehicleTrips	WD_TR	42.70	27.11
tblVehicleTrips	WD_TR	0.00	808.00
tblVehicleTrips	WD_TR	1.89	15.13
tblVehicleTrips	WD_TR	27.92	18.09
tblVehicleTrips	WD_TR	27.49	11.20
tblVehicleTrips	WD_TR	14.03	23.00
tblWoodstoves	NumberCatalytic	52.80	0.00
tblWoodstoves	NumberNoncatalytic	52.80	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.9067	18.4242	5.7827	0.0388	4.1297	0.3225	4.4523	1.1533	0.2998	1.4531	0.0000	3,707.0545	3,707.0545	0.3012	0.0000	3,714.5838
2020	2.7264	43.2172	20.2663	0.1306	6.1282	0.3759	6.5041	1.7093	0.3526	2.0619	0.0000	12,389.4922	12,389.4922	0.6457	0.0000	12,405.6356
2021	2.9964	25.2675	23.2295	0.1088	6.6943	0.2064	6.9007	1.8124	0.1941	2.0065	0.0000	10,136.6079	10,136.6079	0.4098	0.0000	10,146.8539
2022	2.7769	23.6128	21.5456	0.1061	6.6687	0.1791	6.8479	1.8054	0.1685	1.9740	0.0000	9,886.9151	9,886.9151	0.3869	0.0000	9,896.5865
2023	2.4806	18.4075	19.8601	0.1027	6.6688	0.1409	6.8097	1.8055	0.1322	1.9376	0.0000	9,574.1415	9,574.1415	0.3436	0.0000	9,582.7323

2024	2.3647	18.1188	18.8886	0.1013	6.7202	0.1298	6.8500	1.8194	0.1217	1.9411	0.0000	9,451.9452	9,451.9452	0.3339	0.0000	9,460.2933
2025	2.2374	17.6243	17.7996	0.0988	6.6946	0.1174	6.8120	1.8125	0.1100	1.9225	0.0000	9,223.8138	9,223.8138	0.3217	0.0000	9,231.8555
2026	2.1487	17.3457	16.9661	0.0969	6.6947	0.1162	6.8109	1.8125	0.1090	1.9215	0.0000	9,054.0360	9,054.0360	0.3126	0.0000	9,061.8506
2027	1.9971	16.5220	15.7358	0.0920	6.4645	0.1124	6.5768	1.7502	0.1053	1.8555	0.0000	8,604.2573	8,604.2573	0.2967	0.0000	8,611.6743
2028	31.0025	0.6678	1.9232	5.3500e-003	0.5366	0.0314	0.5680	0.1427	0.0291	0.1719	0.0000	479.8522	479.8522	0.0451	0.0000	480.9807
Maximum	**31.0025**	**43.2172**	**23.2295**	**0.1306**	**6.7202**	**0.3759**	**6.9007**	**1.8194**	**0.3526**	**2.0619**	**0.0000**	**12,389.4922**	**12,389.4922**	**0.6457**	**0.0000**	**12,405.6356**

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					
2019	0.4756	14.7424	6.0762	0.0388	2.3575	0.0586	2.4161	0.6264	0.0565	0.6829	0.0000	3,707.0539	3,707.0539	0.3012	0.0000	3,714.5832
2020	2.3991	40.6722	20.6418	0.1306	5.5526	0.1736	5.7262	1.5104	0.1660	1.6763	0.0000	12,389.4916	12,389.4916	0.6457	0.0000	12,405.6350
2021	2.8180	24.4166	23.3990	0.1088	6.6943	0.0923	6.7866	1.8124	0.0876	1.8999	0.0000	10,136.6075	10,136.6075	0.4098	0.0000	10,146.8536
2022	2.6244	23.0013	21.7420	0.1061	6.6687	0.0850	6.7537	1.8054	0.0806	1.8860	0.0000	9,886.9147	9,886.9147	0.3869	0.0000	9,896.5861
2023	2.3455	17.9561	20.0719	0.1027	6.6688	0.0609	6.7297	1.8055	0.0576	1.8630	0.0000	9,574.1412	9,574.1412	0.3436	0.0000	9,582.7319
2024	2.2418	17.7872	19.1122	0.1013	6.7202	0.0605	6.7807	1.8194	0.0572	1.8766	0.0000	9,451.9448	9,451.9448	0.3339	0.0000	9,460.2930
2025	2.1285	17.4211	18.0330	0.0988	6.6946	0.0596	6.7542	1.8125	0.0563	1.8688	0.0000	9,223.8134	9,223.8134	0.3217	0.0000	9,231.8551
2026	2.0399	17.1424	17.1995	0.0969	6.6947	0.0584	6.7531	1.8125	0.0552	1.8677	0.0000	9,054.0356	9,054.0356	0.3126	0.0000	9,061.8502
2027	1.8894	16.3323	15.9734	0.0920	6.4645	0.0548	6.5193	1.7502	0.0519	1.8021	0.0000	8,604.2569	8,604.2569	0.2967	0.0000	8,611.6739
2028	30.9598	0.7505	2.0891	5.3500e-003	0.5366	5.2200e-003	0.5419	0.1427	5.0000e-003	0.1477	0.0000	479.8520	479.8520	0.0451	0.0000	480.9806

Maximum	**30.9598**	**40.6722**	**23.3990**	**0.1306**	**6.7202**	**0.1736**	**6.7866**	**1.8194**	**0.1660**	**1.8999**	**0.0000**	**12,389.4916**	**12,389.4916**	**0.6457**	**0.0000**	**12,405.6350**

	ROG	NOx	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	**3.32**	**4.51**	**-1.44**	**0.00**	**4.09**	**59.07**	**5.70**	**4.65**	**58.47**	**9.71**	**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	**1-1-2019**	**3-31-2019**	2.0521	1.2436
2	**4-1-2019**	**6-30-2019**	2.0549	1.2374
3	**7-1-2019**	**9-30-2019**	1.6482	0.4351
4	**10-1-2019**	**12-31-2019**	13.7374	12.4685
5	**1-1-2020**	**3-31-2020**	15.1614	14.0445
6	**4-1-2020**	**6-30-2020**	14.7627	13.6545
7	**7-1-2020**	**9-30-2020**	7.7932	7.4692
8	**10-1-2020**	**12-31-2020**	7.9896	7.6657
9	**1-1-2021**	**3-31-2021**	7.0479	6.7944
10	**4-1-2021**	**6-30-2021**	6.9633	6.7070
11	**7-1-2021**	**9-30-2021**	7.0398	6.7807
12	**10-1-2021**	**12-31-2021**	7.2045	6.9454
13	**1-1-2022**	**3-31-2022**	6.6032	6.4143
14	**4-1-2022**	**6-30-2022**	6.5304	6.3394
15	**7-1-2022**	**9-30-2022**	6.6021	6.4091
16	**10-1-2022**	**12-31-2022**	6.7499	6.5569
17	**1-1-2023**	**3-31-2023**	5.2375	5.0925
18	**4-1-2023**	**6-30-2023**	5.1784	5.0317
19	**7-1-2023**	**9-30-2023**	5.2353	5.0870
20	**10-1-2023**	**12-31-2023**	5.3539	5.2057
21	**1-1-2024**	**3-31-2024**	5.1507	5.0379
22	**4-1-2024**	**6-30-2024**	5.0401	4.9273
23	**7-1-2024**	**9-30-2024**	5.0955	4.9815
24	**10-1-2024**	**12-31-2024**	5.2073	5.0933

25	**1-1-2025**	**3-31-2025**	4.9560	4.8792
26	**4-1-2025**	**6-30-2025**	4.9067	4.8289
27	**7-1-2025**	**9-30-2025**	4.9606	4.8820
28	**10-1-2025**	**12-31-2025**	5.0662	4.9876
29	**1-1-2026**	**3-31-2026**	4.8622	4.7853
30	**4-1-2026**	**6-30-2026**	4.8168	4.7391
31	**7-1-2026**	**9-30-2026**	4.8697	4.7912
32	**10-1-2026**	**12-31-2026**	4.9702	4.8916
33	**1-1-2027**	**3-31-2027**	4.7705	4.6937
34	**4-1-2027**	**6-30-2027**	4.7293	4.6515
35	**7-1-2027**	**9-30-2027**	4.7812	4.7026
36	**10-1-2027**	**12-31-2027**	4.3310	4.2653
37	**1-1-2028**	**3-31-2028**	0.3104	0.3389
38	**4-1-2028**	**6-30-2028**	2.1517	2.1760
39	**7-1-2028**	**9-30-2028**	15.7158	15.7091
		Highest	15.7158	15.7091

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	22.7367	0.3178	19.7471	1.6300e-003		0.1165	0.1165		0.1165	0.1165	0.0000	137.7272	137.7272	0.0333	1.9300e-003	139.1363
Energy	0.3432	3.0531	2.1291	0.0187		0.2371	0.2371		0.2371	0.2371	0.0000	3,396.7409	3,396.7409	0.0651	0.0623	3,416.9260
Mobile	5.8160	24.3877	63.8307	0.2633	29.6012	0.1863	29.7874	7.9219	0.1731	8.0950	0.0000	24,223.3749	24,223.3749	0.7180	0.0000	24,241.3257
Waste						0.0000	0.0000		0.0000	0.0000	667.6535	0.0000	667.6535	39.4572	0.0000	1,654.0833
Water						0.0000	0.0000		0.0000	0.0000	130.9639	0.0000	130.9639	13.4513	0.3176	561.8939

Total	**28.8959**	**27.7586**	**85.7069**	**0.2837**	**29.6012**	**0.5399**	**30.1411**	**7.9219**	**0.5268**	**8.4486**	**798.6175**	**27,757.8431**	**28,556.4605**	**53.7249**	**0.3818**	**30,013.3653**

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	21.0043	0.2267	19.7084	1.0400e-003		0.1091	0.1091		0.1091	0.1091	0.0000	32.2630	32.2630	0.0313	0.0000	33.0454
Energy	0.3432	3.0531	2.1291	0.0187		0.2371	0.2371		0.2371	0.2371	0.0000	3,396.7409	3,396.7409	0.0651	0.0623	3,416.9260
Mobile	5.8160	24.3877	63.8307	0.2633	29.6012	0.1863	29.7874	7.9219	0.1731	8.0950	0.0000	24,223.3749	24,223.3749	0.7180	0.0000	24,241.3257
Waste						0.0000	0.0000		0.0000	0.0000	667.6535	0.0000	667.6535	39.4572	0.0000	1,654.0833
Water						0.0000	0.0000		0.0000	0.0000	130.9639	0.0000	130.9639	13.4513	0.3176	561.8939
Total	**27.1636**	**27.6675**	**85.6681**	**0.2831**	**29.6012**	**0.5325**	**30.1337**	**7.9219**	**0.5194**	**8.4413**	**798.6175**	**27,652.3788**	**28,450.9963**	**53.7229**	**0.3799**	**29,907.2744**

	ROG	NOx	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	**6.00**	**0.33**	**0.05**	**0.21**	**0.00**	**1.36**	**0.02**	**0.00**	**1.40**	**0.09**	**0.00**	**0.38**	**0.37**	**0.00**	**0.51**	**0.35**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	

5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 5,346,000; Residential Outdoor: 1,782,000; Non-Residential Indoor: 3,235,842; Non-Residential Outdoor: 1,078,614;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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	9,872.00	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	8	20.00	0.00	250,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5,134.00	1,608.00	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	1,027.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**1.0682**	**0.1167**	**1.1849**	**0.1617**	**0.1085**	**0.2703**	**0.0000**	**225.0711**	**225.0711**	**0.0626**	**0.0000**	**226.6365**

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**0.0484**	**1.5395**	**0.3308**	**4.0100e-003**	**0.0914**	**5.9500e-003**	**0.0973**	**0.0251**	**5.6900e-003**	**0.0308**	**0.0000**	**387.2356**	**387.2356**	**0.0180**	**0.0000**	**387.6859**

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					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0380	0.8812	1.6038	2.5200e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	**0.0380**	**0.8812**	**1.6038**	**2.5200e-003**	**0.2403**	**4.0100e-003**	**0.2444**	**0.0364**	**4.0100e-003**	**0.0404**	**0.0000**	**225.0709**	**225.0709**	**0.0626**	**0.0000**	**226.6362**

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**0.0484**	**1.5395**	**0.3308**	**4.0100e-003**	**0.0914**	**5.9500e-003**	**0.0973**	**0.0251**	**5.6900e-003**	**0.0308**	**0.0000**	**387.2356**	**387.2356**	**0.0180**	**0.0000**	**387.6859**

3.3 Site Preparation - 2019

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					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.7046**	**0.0932**	**0.7978**	**0.3873**	**0.0858**	**0.4731**	**0.0000**	**133.2579**	**133.2579**	**0.0422**	**0.0000**	**134.3119**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320

Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.4743	0.8954	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	**0.0272**	**0.4743**	**0.8954**	**1.4800e-003**	**0.1585**	**2.4200e-003**	**0.1610**	**0.0871**	**2.4200e-003**	**0.0896**	**0.0000**	**133.2577**	**133.2577**	**0.0422**	**0.0000**	**134.3118**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

3.4 Grading - 2019

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					0.5139	0.0000	0.5139	0.1309	0.0000	0.1309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.5139**	**0.0631**	**0.5771**	**0.1309**	**0.0581**	**0.1890**	**0.0000**	**147.6085**	**147.6085**	**0.0467**	**0.0000**	**148.7760**

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	0.3308	11.3334	2.2386	0.0290	1.7418	0.0435	1.7853	0.4457	0.0416	0.4874	0.0000	2,805.2317	2,805.2317	0.1315	0.0000	2,808.5180
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**0.3328**	**11.3348**	**2.2534**	**0.0291**	**1.7460**	**0.0435**	**1.7896**	**0.4469**	**0.0417**	**0.4885**	**0.0000**	**2,808.9528**	**2,808.9528**	**0.1316**	**0.0000**	**2,812.2415**

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					0.1156	0.0000	0.1156	0.0295	0.0000	0.0295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.5107	0.9732	1.6400e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	**0.0268**	**0.5107**	**0.9732**	**1.6400e-003**	**0.1156**	**2.6900e-003**	**0.1183**	**0.0295**	**2.6900e-003**	**0.0321**	**0.0000**	**147.6083**	**147.6083**	**0.0467**	**0.0000**	**148.7759**

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	0.3308	11.3334	2.2386	0.0290	1.7418	0.0435	1.7853	0.4457	0.0416	0.4874	0.0000	2,805.2317	2,805.2317	0.1315	0.0000	2,808.5180
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**0.3328**	**11.3348**	**2.2534**	**0.0291**	**1.7460**	**0.0435**	**1.7896**	**0.4469**	**0.0417**	**0.4885**	**0.0000**	**2,808.9528**	**2,808.9528**	**0.1316**	**0.0000**	**2,812.2415**

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					0.7428	0.0000	0.7428	0.2567	0.0000	0.2567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.7428**	**0.1402**	**0.8830**	**0.2567**	**0.1290**	**0.3857**	**0.0000**	**351.4237**	**351.4237**	**0.1137**	**0.0000**	**354.2651**

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	0.7362	25.7100	5.2653	0.0698	1.9640	0.0835	2.0475	0.5264	0.0799	0.6063	0.0000	6,757.5088	6,757.5088	0.3091	0.0000	6,765.2369
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**0.7405**	**25.7131**	**5.2976**	**0.0699**	**1.9742**	**0.0836**	**2.0578**	**0.5291**	**0.0800**	**0.6091**	**0.0000**	**6,766.2828**	**6,766.2828**	**0.3093**	**0.0000**	**6,774.0162**

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					0.1671	0.0000	0.1671	0.0578	0.0000	0.0578	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0652	1.2430	2.3686	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	**0.0652**	**1.2430**	**2.3686**	**4.0000e-003**	**0.1671**	**6.5500e-003**	**0.1737**	**0.0578**	**6.5500e-003**	**0.0643**	**0.0000**	**351.4233**	**351.4233**	**0.1137**	**0.0000**	**354.2647**

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	0.7362	25.7100	5.2653	0.0698	1.9640	0.0835	2.0475	0.5264	0.0799	0.6063	0.0000	6,757.5088	6,757.5088	0.3091	0.0000	6,765.2369
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**0.7405**	**25.7131**	**5.2976**	**0.0699**	**1.9742**	**0.0836**	**2.0578**	**0.5291**	**0.0800**	**0.6091**	**0.0000**	**6,766.2828**	**6,766.2828**	**0.3093**	**0.0000**	**6,774.0162**

3.5 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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600
Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0206**	**154.0206**	**0.0376**	**0.0000**	**154.9600**

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	0.4238	12.1757	3.2428	0.0292	0.7034	0.0603	0.7638	0.2034	0.0577	0.2611	0.0000	2,795.6599	2,795.6599	0.1282	0.0000	2,798.8651
Worker	1.1341	0.8149	8.5443	0.0257	2.7078	0.0175	2.7253	0.7202	0.0161	0.7363	0.0000	2,322.1052	2,322.1052	0.0570	0.0000	2,323.5291
Total	**1.5578**	**12.9905**	**11.7870**	**0.0549**	**3.4112**	**0.0778**	**3.4890**	**0.9235**	**0.0738**	**0.9973**	**0.0000**	**5,117.7651**	**5,117.7651**	**0.1852**	**0.0000**	**5,122.3942**

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	0.0355	0.7257	1.1886	1.7900e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	**0.0355**	**0.7257**	**1.1886**	**1.7900e-003**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**154.0205**	**154.0205**	**0.0376**	**0.0000**	**154.9598**

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	0.4238	12.1757	3.2428	0.0292	0.7034	0.0603	0.7638	0.2034	0.0577	0.2611	0.0000	2,795.6599	2,795.6599	0.1282	0.0000	2,798.8651
Worker	1.1341	0.8149	8.5443	0.0257	2.7078	0.0175	2.7253	0.7202	0.0161	0.7363	0.0000	2,322.1052	2,322.1052	0.0570	0.0000	2,323.5291
Total	**1.5578**	**12.9905**	**11.7870**	**0.0549**	**3.4112**	**0.0778**	**3.4890**	**0.9235**	**0.0738**	**0.9973**	**0.0000**	**5,117.7651**	**5,117.7651**	**0.1852**	**0.0000**	**5,122.3942**

3.5 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.6844	21.5635	5.7401	0.0567	1.3805	0.0478	1.4283	0.3991	0.0457	0.4449	0.0000	5,435.5764	5,435.5764	0.2369	0.0000	5,441.4983
Worker	2.0640	1.4291	15.3264	0.0486	5.3138	0.0334	5.3472	1.4132	0.0308	1.4440	0.0000	4,398.7449	4,398.7449	0.1000	0.0000	4,401.2458
Total	**2.7484**	**22.9926**	**21.0665**	**0.1053**	**6.6943**	**0.0813**	**6.7755**	**1.8124**	**0.0765**	**1.8889**	**0.0000**	**9,834.3212**	**9,834.3212**	**0.3369**	**0.0000**	**9,842.7441**

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	0.0696	1.4240	2.3325	3.5100e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.0696**	**1.4240**	**2.3325**	**3.5100e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.6844	21.5635	5.7401	0.0567	1.3805	0.0478	1.4283	0.3991	0.0457	0.4449	0.0000	5,435.5764	5,435.5764	0.2369	0.0000	5,441.4983
Worker	2.0640	1.4291	15.3264	0.0486	5.3138	0.0334	5.3472	1.4132	0.0308	1.4440	0.0000	4,398.7449	4,398.7449	0.1000	0.0000	4,401.2458
Total	**2.7484**	**22.9926**	**21.0665**	**0.1053**	**6.6943**	**0.0813**	**6.7755**	**1.8124**	**0.0765**	**1.8889**	**0.0000**	**9,834.3212**	**9,834.3212**	**0.3369**	**0.0000**	**9,842.7441**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.6361	20.3056	5.3855	0.0559	1.3753	0.0414	1.4167	0.3976	0.0396	0.4372	0.0000	5,362.9477	5,362.9477	0.2253	0.0000	5,368.5805
Worker	1.9190	1.2772	14.0329	0.0467	5.2934	0.0326	5.3260	1.4078	0.0300	1.4378	0.0000	4,222.7246	4,222.7246	0.0894	0.0000	4,224.9590
Total	**2.5551**	**21.5827**	**19.4184**	**0.1026**	**6.6687**	**0.0740**	**6.7427**	**1.8054**	**0.0696**	**1.8750**	**0.0000**	**9,585.6723**	**9,585.6723**	**0.3147**	**0.0000**	**9,593.5394**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.6361	20.3056	5.3855	0.0559	1.3753	0.0414	1.4167	0.3976	0.0396	0.4372	0.0000	5,362.9477	5,362.9477	0.2253	0.0000	5,368.5805
Worker	1.9190	1.2772	14.0329	0.0467	5.2934	0.0326	5.3260	1.4078	0.0300	1.4378	0.0000	4,222.7246	4,222.7246	0.0894	0.0000	4,224.9590
Total	**2.5551**	**21.5827**	**19.4184**	**0.1026**	**6.6687**	**0.0740**	**6.7427**	**1.8054**	**0.0696**	**1.8750**	**0.0000**	**9,585.6723**	**9,585.6723**	**0.3147**	**0.0000**	**9,593.5394**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

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	0.4793	15.3889	4.8372	0.0543	1.3754	0.0180	1.3934	0.3977	0.0172	0.4148	0.0000	5,210.4725	5,210.4725	0.1918	0.0000	5,215.2683
Worker	1.7968	1.1487	12.9112	0.0449	5.2934	0.0319	5.3253	1.4078	0.0294	1.4372	0.0000	4,062.3228	4,062.3228	0.0801	0.0000	4,064.3258
Total	**2.2761**	**16.5375**	**17.7483**	**0.0992**	**6.6688**	**0.0499**	**6.7187**	**1.8055**	**0.0466**	**1.8520**	**0.0000**	**9,272.7954**	**9,272.7954**	**0.2720**	**0.0000**	**9,279.5940**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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	0.4793	15.3889	4.8372	0.0543	1.3754	0.0180	1.3934	0.3977	0.0172	0.4148	0.0000	5,210.4725	5,210.4725	0.1918	0.0000	5,215.2683

Worker	1.7968	1.1487	12.9112	0.0449	5.2934	0.0319	5.3253	1.4078	0.0294	1.4372	0.0000	4,062.3228	4,062.3228	0.0801	0.0000	4,064.3258
Total	**2.2761**	**16.5375**	**17.7483**	**0.0992**	**6.6688**	**0.0499**	**6.7187**	**1.8055**	**0.0466**	**1.8520**	**0.0000**	**9,272.7954**	**9,272.7954**	**0.2720**	**0.0000**	**9,279.5940**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.4676	15.3115	4.7066	0.0543	1.3861	0.0178	1.4039	0.4008	0.0171	0.4178	0.0000	5,215.4439	5,215.4439	0.1894	0.0000	5,220.1777
Worker	1.7043	1.0462	12.0642	0.0435	5.3341	0.0316	5.3657	1.4186	0.0291	1.4477	0.0000	3,932.7790	3,932.7790	0.0728	0.0000	3,934.5978
Total	**2.1719**	**16.3577**	**16.7708**	**0.0977**	**6.7202**	**0.0495**	**6.7697**	**1.8194**	**0.0461**	**1.8655**	**0.0000**	**9,148.2229**	**9,148.2229**	**0.2621**	**0.0000**	**9,154.7755**

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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	0.4676	15.3115	4.7066	0.0543	1.3861	0.0178	1.4039	0.4008	0.0171	0.4178	0.0000	5,215.4439	5,215.4439	0.1894	0.0000	5,220.1777
Worker	1.7043	1.0462	12.0642	0.0435	5.3341	0.0316	5.3657	1.4186	0.0291	1.4477	0.0000	3,932.7790	3,932.7790	0.0728	0.0000	3,934.5978
Total	**2.1719**	**16.3577**	**16.7708**	**0.0977**	**6.7202**	**0.0495**	**6.7697**	**1.8194**	**0.0461**	**1.8655**	**0.0000**	**9,148.2229**	**9,148.2229**	**0.2621**	**0.0000**	**9,154.7755**

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.4529	15.0497	4.5643	0.0537	1.3809	0.0175	1.3984	0.3993	0.0167	0.4160	0.0000	5,161.8314	5,161.8314	0.1849	0.0000	5,166.4544
Worker	1.6060	0.9473	11.1363	0.0415	5.3138	0.0310	5.3448	1.4132	0.0286	1.4418	0.0000	3,759.3275	3,759.3275	0.0656	0.0000	3,760.9676
Total	**2.0589**	**15.9970**	**15.7005**	**0.0952**	**6.6946**	**0.0485**	**6.7432**	**1.8125**	**0.0453**	**1.8578**	**0.0000**	**8,921.1589**	**8,921.1589**	**0.2505**	**0.0000**	**8,927.4220**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.4529	15.0497	4.5643	0.0537	1.3809	0.0175	1.3984	0.3993	0.0167	0.4160	0.0000	5,161.8314	5,161.8314	0.1849	0.0000	5,166.4544
Worker	1.6060	0.9473	11.1363	0.0415	5.3138	0.0310	5.3448	1.4132	0.0286	1.4418	0.0000	3,759.3275	3,759.3275	0.0656	0.0000	3,760.9676
Total	**2.0589**	**15.9970**	**15.7005**	**0.0952**	**6.6946**	**0.0485**	**6.7432**	**1.8125**	**0.0453**	**1.8578**	**0.0000**	**8,921.1589**	**8,921.1589**	**0.2505**	**0.0000**	**8,927.4220**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.4421	14.8504	4.4753	0.0534	1.3809	0.0172	1.3981	0.3993	0.0164	0.4157	0.0000	5,131.1992	5,131.1992	0.1816	0.0000	5,135.7402
Worker	1.5281	0.8680	10.3917	0.0400	5.3138	0.0302	5.3440	1.4132	0.0278	1.4410	0.0000	3,620.1819	3,620.1819	0.0598	0.0000	3,621.6769
Total	**1.9702**	**15.7184**	**14.8670**	**0.0934**	**6.6947**	**0.0474**	**6.7421**	**1.8125**	**0.0442**	**1.8567**	**0.0000**	**8,751.3811**	**8,751.3811**	**0.2414**	**0.0000**	**8,757.4171**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.4421	14.8504	4.4753	0.0534	1.3809	0.0172	1.3981	0.3993	0.0164	0.4157	0.0000	5,131.1992	5,131.1992	0.1816	0.0000	5,135.7402
Worker	1.5281	0.8680	10.3917	0.0400	5.3138	0.0302	5.3440	1.4132	0.0278	1.4410	0.0000	3,620.1819	3,620.1819	0.0598	0.0000	3,621.6769
Total	**1.9702**	**15.7184**	**14.8670**	**0.0934**	**6.6947**	**0.0474**	**6.7421**	**1.8125**	**0.0442**	**1.8567**	**0.0000**	**8,751.3811**	**8,751.3811**	**0.2414**	**0.0000**	**8,757.4171**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2185**	**292.2185**	**0.0687**	**0.0000**	**293.9358**

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	0.4178	14.1424	4.2499	0.0512	1.3334	0.0163	1.3497	0.3855	0.0156	0.4011	0.0000	4,926.5637	4,926.5637	0.1723	0.0000	4,930.8722
Worker	1.4027	0.7698	9.3927	0.0373	5.1305	0.0277	5.1582	1.3645	0.0255	1.3900	0.0000	3,376.1141	3,376.1141	0.0527	0.0000	3,377.4323

Total	**1.8206**	**14.9122**	**13.6425**	**0.0885**	**6.4639**	**0.0440**	**6.5079**	**1.7500**	**0.0411**	**1.7911**	**0.0000**	**8,302.6778**	**8,302.6778**	**0.2251**	**0.0000**	**8,308.3046**

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	0.0672	1.3749	2.2521	3.4000e-003		0.0107	0.0107		0.0107	0.0107	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355
Total	**0.0672**	**1.3749**	**2.2521**	**3.4000e-003**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**292.2182**	**292.2182**	**0.0687**	**0.0000**	**293.9355**

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	0.4178	14.1424	4.2499	0.0512	1.3334	0.0163	1.3497	0.3855	0.0156	0.4011	0.0000	4,926.5637	4,926.5637	0.1723	0.0000	4,930.8722
Worker	1.4027	0.7698	9.3927	0.0373	5.1305	0.0277	5.1582	1.3645	0.0255	1.3900	0.0000	3,376.1141	3,376.1141	0.0527	0.0000	3,377.4323
Total	**1.8206**	**14.9122**	**13.6425**	**0.0885**	**6.4639**	**0.0440**	**6.5079**	**1.7500**	**0.0411**	**1.7911**	**0.0000**	**8,302.6778**	**8,302.6778**	**0.2251**	**0.0000**	**8,308.3046**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

Mitigated Construction On-Site

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

Off-Road	1.5000e-003	0.0452	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
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-003**	**0.0452**	**0.0778**	**1.0000e-004**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1165**	**121.1165**	**0.0392**	**0.0000**	**122.0958**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

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	0.0202	0.6074	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.6074**	**1.0464**	**1.3800e-003**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**121.1164**	**121.1164**	**0.0392**	**0.0000**	**122.0956**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	30.7973					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	**30.8084**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5962**	**16.5962**	**9.1000e-004**	**0.0000**	**16.6188**

Unmitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1370	0.0732	0.9112	3.7300e-003	0.5294	2.6600e-003	0.5321	0.1408	2.4500e-003	0.1433	0.0000	337.5507	337.5507	5.0000e-003	0.0000	337.6756
Total	**0.1370**	**0.0732**	**0.9112**	**3.7300e-003**	**0.5294**	**2.6600e-003**	**0.5321**	**0.1408**	**2.4500e-003**	**0.1433**	**0.0000**	**337.5507**	**337.5507**	**5.0000e-003**	**0.0000**	**337.6756**

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	30.7973					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5400e-003	0.0689	0.1191	1.9000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	**30.8008**	**0.0689**	**0.1191**	**1.9000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**16.5961**	**16.5961**	**9.1000e-004**	**0.0000**	**16.6188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1370	0.0732	0.9112	3.7300e-003	0.5294	2.6600e-003	0.5321	0.1408	2.4500e-003	0.1433	0.0000	337.5507	337.5507	5.0000e-003	0.0000	337.6756
Total	**0.1370**	**0.0732**	**0.9112**	**3.7300e-003**	**0.5294**	**2.6600e-003**	**0.5321**	**0.1408**	**2.4500e-003**	**0.1433**	**0.0000**	**337.5507**	**337.5507**	**5.0000e-003**	**0.0000**	**337.6756**

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	5.8160	24.3877	63.8307	0.2633	29.6012	0.1863	29.7874	7.9219	0.1731	8.0950	0.0000	24,223.3749	24,223.3749	0.7180	0.0000	24,241.3257
Unmitigated	5.8160	24.3877	63.8307	0.2633	29.6012	0.1863	29.7874	7.9219	0.1731	8.0950	0.0000	24,223.3749	24,223.3749	0.7180	0.0000	24,241.3257

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	11,484.00	10,956.00	10058.40	25,878,952	25,878,952
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	9,880.00	2,210.00	950.00	17,943,630	17,943,630
Hotel	2,267.91	2,278.08	1654.32	4,145,093	4,145,093
Regional Shopping Center	16,266.00	18,888.00	9540.00	27,491,319	27,491,319
User Defined Parking	808.00	808.00	808.00	1,470,560	1,470,560
City Park	453.90	453.90	453.90	969,010	969,010
Government (Civic Center)	814.05	0.00	0.00	1,111,549	1,111,549
Junior College (2Yr)	112.00	46.00	5.00	221,665	221,665
Racquet Club	230.00	230.00	230.00	391,222	391,222
Total	42,315.86	35,869.98	23,699.62	79,622,998	79,622,998

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
User Defined Parking	5.00	5.00	5.00	0.00	100.00	0.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Racquet Club	9.50	7.30	7.30	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
General Office Building	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Hotel	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
User Defined Parking	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
City Park	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Government (Civic Center)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Junior College (2Yr)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Racquet Club	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.3432	3.0531	2.1291	0.0187		0.2371	0.2371		0.2371	0.2371	0.0000	3,396.7409	3,396.7409	0.0651	0.0623	3,416.9260
NaturalGas Unmitigated	0.3432	3.0531	2.1291	0.0187		0.2371	0.2371		0.2371	0.2371	0.0000	3,396.7409	3,396.7409	0.0651	0.0623	3,416.9260

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.28081e+007	0.1230	1.0510	0.4472	6.7100e-003		0.0850	0.0850		0.0850	0.0850	0.0000	1,217.1296	1,217.1296	0.0233	0.0223	1,224.3624
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.637e+007	0.0883	0.8025	0.6741	4.8100e-003		0.0610	0.0610		0.0610	0.0610	0.0000	873.5655	873.5655	0.0167	0.0160	878.7567
Government (Civic Center)	736650	3.9700e-003	0.0361	0.0303	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.3105	39.3105	7.5000e-004	7.2000e-004	39.5441
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Junior College (2Yr)	241300	1.3000e-003	0.0118	9.9400e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	12.8767	12.8767	2.5000e-004	2.4000e-004	12.9532
Racquet Club	263800	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0774	14.0774	2.7000e-004	2.6000e-004	14.1610
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343

User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3432**	**3.0531**	**2.1290**	**0.0187**		**0.2371**	**0.2371**		**0.2371**	**0.2371**	**0.0000**	**3,396.7409**	**3,396.7409**	**0.0651**	**0.0623**	**3,416.9260**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.28081e+007	0.1230	1.0510	0.4472	6.7100e-003		0.0850	0.0850		0.0850	0.0850	0.0000	1,217.1296	1,217.1296	0.0233	0.0223	1,224.3624
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.637e+007	0.0883	0.8025	0.6741	4.8100e-003		0.0610	0.0610		0.0610	0.0610	0.0000	873.5655	873.5655	0.0167	0.0160	878.7567
Government (Civic Center)	736650	3.9700e-003	0.0361	0.0303	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.3105	39.3105	7.5000e-004	7.2000e-004	39.5441
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Junior College (2Yr)	241300	1.3000e-003	0.0118	9.9400e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	12.8767	12.8767	2.5000e-004	2.4000e-004	12.9532
Racquet Club	263800	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0774	14.0774	2.7000e-004	2.6000e-004	14.1610
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3432**	**3.0531**	**2.1290**	**0.0187**		**0.2371**	**0.2371**		**0.2371**	**0.2371**	**0.0000**	**3,396.7409**	**3,396.7409**	**0.0651**	**0.0623**	**3,416.9260**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.08988e+007	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.71013e+007	0.0000	0.0000	0.0000	0.0000
General Office Building	1.783e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	802350	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	79100	0.0000	0.0000	0.0000	0.0000
Racquet Club	82600	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.08988e+007	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.71013e+007	0.0000	0.0000	0.0000	0.0000

General Office Building	1.783e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	802350	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	79100	0.0000	0.0000	0.0000	0.0000
Racquet Club	82600	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	21.0043	0.2267	19.7084	1.0400e-003		0.1091	0.1091		0.1091	0.1091	0.0000	32.2630	32.2630	0.0313	0.0000	33.0454
Unmitigated	22.7367	0.3178	19.7471	1.6300e-003		0.1165	0.1165		0.1165	0.1165	0.0000	137.7272	137.7272	0.0333	1.9300e-003	139.1363

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	3.0797					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	19.0468					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0107	0.0911	0.0388	5.8000e-004		7.3600e-003	7.3600e-003		7.3600e-003	7.3600e-003	0.0000	105.4642	105.4642	2.0200e-003	1.9300e-003	106.0910
Landscaping	0.5995	0.2267	19.7084	1.0400e-003		0.1091	0.1091		0.1091	0.1091	0.0000	32.2630	32.2630	0.0313	0.0000	33.0454
Total	**22.7367**	**0.3178**	**19.7471**	**1.6200e-003**		**0.1165**	**0.1165**		**0.1165**	**0.1165**	**0.0000**	**137.7272**	**137.7272**	**0.0333**	**1.9300e-003**	**139.1363**

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	1.3581					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	19.0468					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5995	0.2267	19.7084	1.0400e-003		0.1091	0.1091		0.1091	0.1091	0.0000	32.2630	32.2630	0.0313	0.0000	33.0454
Total	**21.0043**	**0.2267**	**19.7084**	**1.0400e-003**		**0.1091**	**0.1091**		**0.1091**	**0.1091**	**0.0000**	**32.2630**	**32.2630**	**0.0313**	**0.0000**	**33.0454**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	130.9639	13.4513	0.3176	561.8939
Unmitigated	130.9639	13.4513	0.3176	561.8939

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	172.007 / 108.439	54.5698	5.6048	0.1323	234.1288
City Park	0 / 35.7444	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	177.734 / 108.934	56.3867	5.7915	0.1368	241.9243
Government (Civic Center)	8.93969 / 5.47916	2.8362	0.2913	6.8800e-003	12.1684
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051

Junior College (2Yr)	0.49049 / 0.767177	0.1556	0.0160	3.8000e-004	0.6676
Racquet Club	0.591431 / 0.36249	0.1876	0.0193	4.6000e-004	0.8050
Regional Shopping Center	44.4435 / 27.2396	14.0999	1.4482	0.0342	60.4948
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**130.9639**	**13.4513**	**0.3176**	**561.8939**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	172.007 / 108.439	54.5698	5.6048	0.1323	234.1288
City Park	0 / 35.7444	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	177.734 / 108.934	56.3867	5.7915	0.1368	241.9243
Government (Civic Center)	8.93969 / 5.47916	2.8362	0.2913	6.8800e-003	12.1684
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051
Junior College (2Yr)	0.49049 / 0.767177	0.1556	0.0160	3.8000e-004	0.6676
Racquet Club	0.591431 / 0.36249	0.1876	0.0193	4.6000e-004	0.8050
Regional Shopping Center	44.4435 / 27.2396	14.0999	1.4482	0.0342	60.4948
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**130.9639**	**13.4513**	**0.3176**	**561.8939**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	667.6535	39.4572	0.0000	1,654.0833
Unmitigated	667.6535	39.4572	0.0000	1,654.0833

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1214.4	246.5122	14.5685	0.0000	610.7236
City Park	2.58	0.5237	0.0310	0.0000	1.2975
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	930	188.7816	11.1567	0.0000	467.6984
Government (Civic Center)	256.5	52.0672	3.0771	0.0000	128.9942
Hotel	185.6	37.6751	2.2265	0.0000	93.3385

Junior College (2Yr)	13	2.6389	0.1560	0.0000	6.5377
Racquet Club	57	11.5705	0.6838	0.0000	28.6654
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**667.6535**	**39.4572**	**0.0000**	**1,654.0833**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1214.4	246.5122	14.5685	0.0000	610.7236
City Park	2.58	0.5237	0.0310	0.0000	1.2975
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	930	188.7816	11.1567	0.0000	467.6984
Government (Civic Center)	256.5	52.0672	3.0771	0.0000	128.9942
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Junior College (2Yr)	13	2.6389	0.1560	0.0000	6.5377
Racquet Club	57	11.5705	0.6838	0.0000	28.6654
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**667.6535**	**39.4572**	**0.0000**	**1,654.0833**

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

Vallco, Cupertino - Max Res - Santa Clara County, Annual

Vallco, Cupertino - Max Res, Construction TAC

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	1,000.00	1000sqft	58.00	1,000,000.00	0
Enclosed Parking with Elevator	11,562.00	Space	0.00	4,624,800.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	2,640.00	Dwelling Unit	0.00	2,640,000.00	7550
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0
City Park	30.00	Acre	0.00	1,306,800.00	0
Government (Civic Center)	45.00	1000sqft	0.00	45,000.00	0
Racquet Club	10.00	1000sqft	0.00	10,000.00	0
Junior College (2Yr)	10.00	1000sqft	0.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free electricity

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT - One mile trip lengths to calculate risk from on- and near-site vehicle travel

Demolition - 2,170,350 sf demo

Grading - 2,000,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - low VOC paint (50 g/L), no hearth

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	396.00	844.80
tblFireplaces	NumberWood	448.80	0.00
tblGrading	MaterialExported	0.00	2,000,000.00
tblLandUse	LotAcreage	22.96	58.00
tblLandUse	LotAcreage	104.06	0.00
tblLandUse	LotAcreage	11.30	0.00

tblLandUse	LotAcreage	69.47	0.00
tblLandUse	LotAcreage	13.77	0.00
tblLandUse	LotAcreage	30.00	0.00
tblLandUse	LotAcreage	1.03	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	0.23	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
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
tblVehicleTrips	CC_TL	7.30	5.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	5.00

tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.39	4.15
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	8.19	6.72
tblVehicleTrips	ST_TR	49.97	31.48
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	ST_TR	22.75	15.13
tblVehicleTrips	ST_TR	11.23	4.60
tblVehicleTrips	ST_TR	21.35	23.00
tblVehicleTrips	SU_TR	5.86	3.81
tblVehicleTrips	SU_TR	1.05	0.95
tblVehicleTrips	SU_TR	5.95	4.88
tblVehicleTrips	SU_TR	25.24	15.90
tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	SU_TR	16.74	15.13
tblVehicleTrips	SU_TR	1.21	0.50
tblVehicleTrips	SU_TR	17.40	23.00
tblVehicleTrips	WD_TR	6.65	4.35
tblVehicleTrips	WD_TR	11.03	9.88
tblVehicleTrips	WD_TR	8.17	6.69
tblVehicleTrips	WD_TR	42.70	27.11
tblVehicleTrips	WD_TR	0.00	808.00
tblVehicleTrips	WD_TR	1.89	15.13
tblVehicleTrips	WD_TR	27.92	18.09
tblVehicleTrips	WD_TR	27.49	11.20
tblVehicleTrips	WD_TR	14.03	23.00
tblWoodstoves	NumberCatalytic	52.80	0.00
tblWoodstoves	NumberNoncatalytic	52.80	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00

tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6261	9.9774	3.9340	0.0112	2.3805	0.2787	2.6591	0.7041	0.2578	0.9619	0.0000	1,043.3215	1,043.3215	0.2141	0.0000	1,048.6743
2020	1.2020	20.9765	8.9056	0.0297	1.1963	0.2381	1.4344	0.3806	0.2213	0.6019	0.0000	2,793.2775	2,793.2775	0.3694	0.0000	2,802.5123
2021	1.2802	15.9153	9.7153	0.0267	0.6919	0.1430	0.8349	0.1898	0.1345	0.3243	0.0000	2,497.1423	2,497.1423	0.2484	0.0000	2,503.3529
2022	1.1681	15.1518	9.0376	0.0263	0.6893	0.1213	0.8106	0.1891	0.1142	0.3032	0.0000	2,453.9383	2,453.9383	0.2353	0.0000	2,459.8206
2023	1.0297	13.0060	8.3520	0.0255	0.6893	0.1019	0.7911	0.1891	0.0958	0.2848	0.0000	2,379.8763	2,379.8763	0.2030	0.0000	2,384.9519
2024	0.9693	12.8552	7.9924	0.0252	0.6946	0.0910	0.7856	0.1905	0.0856	0.2761	0.0000	2,361.9335	2,361.9335	0.1982	0.0000	2,366.8879
2025	0.9052	12.5589	7.6037	0.0248	0.6919	0.0793	0.7712	0.1898	0.0745	0.2643	0.0000	2,318.3995	2,318.3995	0.1915	0.0000	2,323.1860
2026	0.8650	12.4479	7.3218	0.0244	0.6920	0.0789	0.7709	0.1898	0.0742	0.2640	0.0000	2,287.9325	2,287.9325	0.1866	0.0000	2,292.5963
2027	0.8043	11.9584	6.9021	0.0234	0.6682	0.0777	0.7459	0.1833	0.0730	0.2563	0.0000	2,192.2471	2,192.2471	0.1787	0.0000	2,196.7136
2028	30.9042	0.6080	1.2208	2.0300e-003	0.0503	0.0292	0.0795	0.0135	0.0272	0.0406	0.0000	178.7374	178.7374	0.0410	0.0000	179.7635
Maximum	**30.9042**	**20.9765**	**9.7153**	**0.0297**	**2.3805**	**0.2787**	**2.6591**	**0.7041**	**0.2578**	**0.9619**	**0.0000**	**2,793.2775**	**2,793.2775**	**0.3694**	**0.0000**	**2,802.5123**

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					
2019	0.1950	6.2956	4.2275	0.0112	0.6083	0.0148	0.6230	0.1772	0.0145	0.1917	0.0000	1,043.3209	1,043.3209	0.2141	0.0000	1,048.6737
2020	0.8747	18.4315	9.2811	0.0297	0.6206	0.0358	0.6564	0.1817	0.0347	0.2163	0.0000	2,793.2769	2,793.2769	0.3694	0.0000	2,802.5117
2021	1.1018	15.0645	9.8847	0.0267	0.6919	0.0289	0.7208	0.1898	0.0279	0.2177	0.0000	2,497.1419	2,497.1419	0.2484	0.0000	2,503.3526
2022	1.0157	14.5404	9.2339	0.0263	0.6893	0.0272	0.7164	0.1891	0.0262	0.2153	0.0000	2,453.9379	2,453.9379	0.2353	0.0000	2,459.8203
2023	0.8946	12.5546	8.5639	0.0255	0.6893	0.0219	0.7112	0.1891	0.0212	0.2102	0.0000	2,379.8760	2,379.8760	0.2030	0.0000	2,384.9515
2024	0.8464	12.5236	8.2160	0.0252	0.6946	0.0218	0.7164	0.1905	0.0211	0.2116	0.0000	2,361.9331	2,361.9331	0.1982	0.0000	2,366.8875
2025	0.7963	12.3556	7.8371	0.0248	0.6919	0.0214	0.7134	0.1898	0.0208	0.2106	0.0000	2,318.3992	2,318.3992	0.1915	0.0000	2,323.1856
2026	0.7562	12.2446	7.5553	0.0244	0.6920	0.0211	0.7131	0.1898	0.0205	0.2103	0.0000	2,287.9322	2,287.9322	0.1866	0.0000	2,292.5960
2027	0.6966	11.7687	7.1398	0.0234	0.6682	0.0202	0.6883	0.1833	0.0196	0.2028	0.0000	2,192.2468	2,192.2468	0.1787	0.0000	2,196.7132
2028	30.8615	0.6906	1.3868	2.0300e-003	0.0503	3.0800e-003	0.0534	0.0135	3.0400e-003	0.0165	0.0000	178.7372	178.7372	0.0410	0.0000	179.7633
Maximum	**30.8615**	**18.4315**	**9.8847**	**0.0297**	**0.6946**	**0.0358**	**0.7208**	**0.1905**	**0.0347**	**0.2177**	**0.0000**	**2,793.2769**	**2,793.2769**	**0.3694**	**0.0000**	**2,802.5117**

	ROG	NOx	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	**4.31**	**7.16**	**-3.30**	**0.00**	**27.80**	**82.56**	**34.81**	**30.00**	**81.92**	**46.81**	**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	**1-1-2019**	**3-31-2019**	1.5268	0.7182
2	**4-1-2019**	**6-30-2019**	1.5511	0.7336
3	**7-1-2019**	**9-30-2019**	1.6402	0.4271
4	**10-1-2019**	**12-31-2019**	5.8523	4.5834
5	**1-1-2020**	**3-31-2020**	6.3974	5.2805
6	**4-1-2020**	**6-30-2020**	6.5026	5.3944
7	**7-1-2020**	**9-30-2020**	4.6547	4.3308

8	**10-1-2020**	**12-31-2020**	4.5706	4.2466
9	**1-1-2021**	**3-31-2021**	4.2015	3.9480
10	**4-1-2021**	**6-30-2021**	4.3296	4.0733
11	**7-1-2021**	**9-30-2021**	4.3772	4.1181
12	**10-1-2021**	**12-31-2021**	4.2948	4.0357
13	**1-1-2022**	**3-31-2022**	4.0019	3.8130
14	**4-1-2022**	**6-30-2022**	4.1252	3.9343
15	**7-1-2022**	**9-30-2022**	4.1706	3.9775
16	**10-1-2022**	**12-31-2022**	4.0908	3.8978
17	**1-1-2023**	**3-31-2023**	3.4483	3.3032
18	**4-1-2023**	**6-30-2023**	3.5472	3.4005
19	**7-1-2023**	**9-30-2023**	3.5862	3.4379
20	**10-1-2023**	**12-31-2023**	3.5249	3.3766
21	**1-1-2024**	**3-31-2024**	3.4072	3.2944
22	**4-1-2024**	**6-30-2024**	3.4664	3.3537
23	**7-1-2024**	**9-30-2024**	3.5045	3.3905
24	**10-1-2024**	**12-31-2024**	3.4446	3.3306
25	**1-1-2025**	**3-31-2025**	3.2938	3.2170
26	**4-1-2025**	**6-30-2025**	3.3885	3.3108
27	**7-1-2025**	**9-30-2025**	3.4257	3.3471
28	**10-1-2025**	**12-31-2025**	3.3670	3.2885
29	**1-1-2026**	**3-31-2026**	3.2566	3.1797
30	**4-1-2026**	**6-30-2026**	3.3496	3.2719
31	**7-1-2026**	**9-30-2026**	3.3864	3.3078
32	**10-1-2026**	**12-31-2026**	3.3289	3.2504
33	**1-1-2027**	**3-31-2027**	3.2224	3.1455
34	**4-1-2027**	**6-30-2027**	3.3139	3.2362
35	**7-1-2027**	**9-30-2027**	3.3503	3.2718
36	**10-1-2027**	**12-31-2027**	2.9375	2.8718
37	**1-1-2028**	**3-31-2028**	0.3090	0.3375

38	**4-1-2028**	**6-30-2028**	2.1420	2.1663
39	**7-1-2028**	**9-30-2028**	15.6425	15.6359
		Highest	15.6425	15.6359

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 5,346,000; Residential Outdoor: 1,782,000; Non-Residential Indoor: 3,235,842; Non-Residential Outdoor: 1,078,614;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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	9,872.00	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	8	20.00	0.00	250,000.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5,134.00	1,608.00	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	1,027.00	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

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**1.0682**	**0.1167**	**1.1849**	**0.1617**	**0.1085**	**0.2703**	**0.0000**	**225.0711**	**225.0711**	**0.0626**	**0.0000**	**226.6365**

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	0.0120	0.5288	0.0882	6.6000e-004	4.2800e-003	6.7000e-004	4.9500e-003	1.1900e-003	6.4000e-004	1.8300e-003	0.0000	63.9471	63.9471	7.4700e-003	0.0000	64.1339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-003	5.7000e-004	7.2000e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8179	0.8179	4.0000e-005	0.0000	0.8188
Total	**0.0132**	**0.5293**	**0.0954**	**6.7000e-004**	**5.0000e-003**	**6.8000e-004**	**5.6800e-003**	**1.3800e-003**	**6.5000e-004**	**2.0300e-003**	**0.0000**	**64.7650**	**64.7650**	**7.5100e-003**	**0.0000**	**64.9527**

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					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0380	0.8812	1.6038	2.5200e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	**0.0380**	**0.8812**	**1.6038**	**2.5200e-003**	**0.2403**	**4.0100e-003**	**0.2444**	**0.0364**	**4.0100e-003**	**0.0404**	**0.0000**	**225.0709**	**225.0709**	**0.0626**	**0.0000**	**226.6362**

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	0.0120	0.5288	0.0882	6.6000e-004	4.2800e-003	6.7000e-004	4.9500e-003	1.1900e-003	6.4000e-004	1.8300e-003	0.0000	63.9471	63.9471	7.4700e-003	0.0000	64.1339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-003	5.7000e-004	7.2000e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8179	0.8179	4.0000e-005	0.0000	0.8188
Total	**0.0132**	**0.5293**	**0.0954**	**6.7000e-004**	**5.0000e-003**	**6.8000e-004**	**5.6800e-003**	**1.3800e-003**	**6.5000e-004**	**2.0300e-003**	**0.0000**	**64.7650**	**64.7650**	**7.5100e-003**	**0.0000**	**64.9527**

3.3 Site Preparation - 2019

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					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.7046**	**0.0932**	**0.7978**	**0.3873**	**0.0858**	**0.4731**	**0.0000**	**133.2579**	**133.2579**	**0.0422**	**0.0000**	**134.3119**

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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	**8.6000e-004**	**4.1000e-004**	**5.1900e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.5889**	**0.5889**	**3.0000e-005**	**0.0000**	**0.5896**

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.4743	0.8954	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	**0.0272**	**0.4743**	**0.8954**	**1.4800e-003**	**0.1585**	**2.4200e-003**	**0.1610**	**0.0871**	**2.4200e-003**	**0.0896**	**0.0000**	**133.2577**	**133.2577**	**0.0422**	**0.0000**	**134.3118**

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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	**8.6000e-004**	**4.1000e-004**	**5.1900e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.5889**	**0.5889**	**3.0000e-005**	**0.0000**	**0.5896**

3.4 Grading - 2019

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					0.5139	0.0000	0.5139	0.1309	0.0000	0.1309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.5139**	**0.0631**	**0.5771**	**0.1309**	**0.0581**	**0.1890**	**0.0000**	**147.6085**	**147.6085**	**0.0467**	**0.0000**	**148.7760**

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	0.0884	3.8993	0.6506	4.8800e-003	0.0878	4.9400e-003	0.0928	0.0226	4.7300e-003	0.0273	0.0000	471.5855	471.5855	0.0551	0.0000	472.9625

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.1000e-004	3.9200e-003	0.0000	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4446	0.4446	2.0000e-005	0.0000	0.4451
Total	**0.0890**	**3.8997**	**0.6545**	**4.8800e-003**	**0.0882**	**4.9500e-003**	**0.0932**	**0.0227**	**4.7400e-003**	**0.0274**	**0.0000**	**472.0301**	**472.0301**	**0.0551**	**0.0000**	**473.4076**

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					0.1156	0.0000	0.1156	0.0295	0.0000	0.0295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.5107	0.9732	1.6400e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	**0.0268**	**0.5107**	**0.9732**	**1.6400e-003**	**0.1156**	**2.6900e-003**	**0.1183**	**0.0295**	**2.6900e-003**	**0.0321**	**0.0000**	**147.6083**	**147.6083**	**0.0467**	**0.0000**	**148.7759**

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	0.0884	3.8993	0.6506	4.8800e-003	0.0878	4.9400e-003	0.0928	0.0226	4.7300e-003	0.0273	0.0000	471.5855	471.5855	0.0551	0.0000	472.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.1000e-004	3.9200e-003	0.0000	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4446	0.4446	2.0000e-005	0.0000	0.4451
Total	**0.0890**	**3.8997**	**0.6545**	**4.8800e-003**	**0.0882**	**4.9500e-003**	**0.0932**	**0.0227**	**4.7400e-003**	**0.0274**	**0.0000**	**472.0301**	**472.0301**	**0.0551**	**0.0000**	**473.4076**

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					0.7428	0.0000	0.7428	0.2567	0.0000	0.2567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.7428**	**0.1402**	**0.8830**	**0.2567**	**0.1290**	**0.3857**	**0.0000**	**351.4237**	**351.4237**	**0.1137**	**0.0000**	**354.2651**

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	0.1924	9.1376	1.4917	0.0119	0.1000	8.6000e-003	0.1086	0.0270	8.2300e-003	0.0352	0.0000	1,150.7217	1,150.7217	0.1224	0.0000	1,153.7818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	**0.1939**	**9.1382**	**1.5002**	**0.0119**	**0.1009**	**8.6100e-003**	**0.1096**	**0.0272**	**8.2400e-003**	**0.0355**	**0.0000**	**1,151.7707**	**1,151.7707**	**0.1225**	**0.0000**	**1,154.8319**

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					0.1671	0.0000	0.1671	0.0578	0.0000	0.0578	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0652	1.2430	2.3686	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	**0.0652**	**1.2430**	**2.3686**	**4.0000e-003**	**0.1671**	**6.5500e-003**	**0.1737**	**0.0578**	**6.5500e-003**	**0.0643**	**0.0000**	**351.4233**	**351.4233**	**0.1137**	**0.0000**	**354.2647**

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	0.1924	9.1376	1.4917	0.0119	0.1000	8.6000e-003	0.1086	0.0270	8.2300e-003	0.0352	0.0000	1,150.7217	1,150.7217	0.1224	0.0000	1,153.7818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	**0.1939**	**9.1382**	**1.5002**	**0.0119**	**0.1009**	**8.6100e-003**	**0.1096**	**0.0272**	**8.2400e-003**	**0.0355**	**0.0000**	**1,151.7707**	**1,151.7707**	**0.1225**	**0.0000**	**1,154.8319**

3.5 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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600

Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0206**	**154.0206**	**0.0376**	**0.0000**	**154.9600**

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	0.2019	7.1515	1.9850	8.9400e-003	0.0988	0.0115	0.1103	0.0288	0.0110	0.0399	0.0000	858.4257	858.4257	0.0838	0.0000	860.5198
Worker	0.3782	0.1732	2.2387	3.0900e-003	0.2538	3.4800e-003	0.2573	0.0679	3.2000e-003	0.0711	0.0000	277.6368	277.6368	0.0120	0.0000	277.9355
Total	**0.5801**	**7.3247**	**4.2237**	**0.0120**	**0.3526**	**0.0150**	**0.3676**	**0.0967**	**0.0142**	**0.1109**	**0.0000**	**1,136.0625**	**1,136.0625**	**0.0957**	**0.0000**	**1,138.4553**

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	0.0355	0.7257	1.1886	1.7900e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	**0.0355**	**0.7257**	**1.1886**	**1.7900e-003**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**154.0205**	**154.0205**	**0.0376**	**0.0000**	**154.9598**

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	0.2019	7.1515	1.9850	8.9400e-003	0.0988	0.0115	0.1103	0.0288	0.0110	0.0399	0.0000	858.4257	858.4257	0.0838	0.0000	860.5198
Worker	0.3782	0.1732	2.2387	3.0900e-003	0.2538	3.4800e-003	0.2573	0.0679	3.2000e-003	0.0711	0.0000	277.6368	277.6368	0.0120	0.0000	277.9355
Total	**0.5801**	**7.3247**	**4.2237**	**0.0120**	**0.3526**	**0.0150**	**0.3676**	**0.0967**	**0.0142**	**0.1109**	**0.0000**	**1,136.0625**	**1,136.0625**	**0.0957**	**0.0000**	**1,138.4553**

3.5 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.3540	13.3409	3.5933	0.0174	0.1939	0.0112	0.2051	0.0566	0.0107	0.0673	0.0000	1,668.5174	1,668.5174	0.1548	0.0000	1,672.3874
Worker	0.6781	0.2996	3.9589	5.8600e-003	0.4980	6.6700e-003	0.5047	0.1332	6.1400e-003	0.1394	0.0000	526.3382	526.3382	0.0207	0.0000	526.8557
Total	**1.0322**	**13.6405**	**7.5522**	**0.0232**	**0.6919**	**0.0179**	**0.7098**	**0.1898**	**0.0169**	**0.2066**	**0.0000**	**2,194.8556**	**2,194.8556**	**0.1755**	**0.0000**	**2,199.2431**

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	0.0696	1.4240	2.3325	3.5100e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.0696**	**1.4240**	**2.3325**	**3.5100e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.3540	13.3409	3.5933	0.0174	0.1939	0.0112	0.2051	0.0566	0.0107	0.0673	0.0000	1,668.5174	1,668.5174	0.1548	0.0000	1,672.3874

Worker	0.6781	0.2996	3.9589	5.8600e-003	0.4980	6.6700e-003	0.5047	0.1332	6.1400e-003	0.1394	0.0000	526.3382	526.3382	0.0207	0.0000	526.8557
Total	**1.0322**	**13.6405**	**7.5522**	**0.0232**	**0.6919**	**0.0179**	**0.7098**	**0.1898**	**0.0169**	**0.2066**	**0.0000**	**2,194.8556**	**2,194.8556**	**0.1755**	**0.0000**	**2,199.2431**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.3264	12.8576	3.3375	0.0171	0.1931	9.6400e-003	0.2028	0.0563	9.2100e-003	0.0656	0.0000	1,647.0831	1,647.0831	0.1449	0.0000	1,650.7048
Worker	0.6199	0.2642	3.5729	5.6200e-003	0.4961	6.5200e-003	0.5026	0.1327	6.0000e-003	0.1387	0.0000	505.6123	505.6123	0.0183	0.0000	506.0688
Total	**0.9463**	**13.1218**	**6.9103**	**0.0228**	**0.6892**	**0.0162**	**0.7054**	**0.1891**	**0.0152**	**0.2043**	**0.0000**	**2,152.6954**	**2,152.6954**	**0.1631**	**0.0000**	**2,156.7736**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.3264	12.8576	3.3375	0.0171	0.1931	9.6400e-003	0.2028	0.0563	9.2100e-003	0.0656	0.0000	1,647.0831	1,647.0831	0.1449	0.0000	1,650.7048
Worker	0.6199	0.2642	3.5729	5.6200e-003	0.4961	6.5200e-003	0.5026	0.1327	6.0000e-003	0.1387	0.0000	505.6123	505.6123	0.0183	0.0000	506.0688
Total	**0.9463**	**13.1218**	**6.9103**	**0.0228**	**0.6892**	**0.0162**	**0.7054**	**0.1891**	**0.0152**	**0.2043**	**0.0000**	**2,152.6954**	**2,152.6954**	**0.1631**	**0.0000**	**2,156.7736**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

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	0.2547	10.9011	2.9947	0.0165	0.1932	4.4800e-003	0.1976	0.0563	4.2700e-003	0.0606	0.0000	1,591.8267	1,591.8267	0.1152	0.0000	1,594.7055
Worker	0.5705	0.2349	3.2456	5.4100e-003	0.4961	6.4200e-003	0.5025	0.1327	5.9100e-003	0.1386	0.0000	486.7035	486.7035	0.0162	0.0000	487.1081
Total	**0.8252**	**11.1360**	**6.2403**	**0.0219**	**0.6893**	**0.0109**	**0.7002**	**0.1891**	**0.0102**	**0.1992**	**0.0000**	**2,078.5302**	**2,078.5302**	**0.1313**	**0.0000**	**2,081.8136**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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	0.2547	10.9011	2.9947	0.0165	0.1932	4.4800e-003	0.1976	0.0563	4.2700e-003	0.0606	0.0000	1,591.8267	1,591.8267	0.1152	0.0000	1,594.7055
Worker	0.5705	0.2349	3.2456	5.4100e-003	0.4961	6.4200e-003	0.5025	0.1327	5.9100e-003	0.1386	0.0000	486.7035	486.7035	0.0162	0.0000	487.1081
Total	**0.8252**	**11.1360**	**6.2403**	**0.0219**	**0.6893**	**0.0109**	**0.7002**	**0.1891**	**0.0102**	**0.1992**	**0.0000**	**2,078.5302**	**2,078.5302**	**0.1313**	**0.0000**	**2,081.8136**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.2449	10.8825	2.8775	0.0165	0.1947	4.3100e-003	0.1990	0.0568	4.1100e-003	0.0609	0.0000	1,586.7728	1,586.7728	0.1118	0.0000	1,589.5683
Worker	0.5317	0.2115	2.9970	5.2400e-003	0.4999	6.3800e-003	0.5063	0.1337	5.8700e-003	0.1396	0.0000	471.4384	471.4384	0.0145	0.0000	471.8017
Total	**0.7766**	**11.0941**	**5.8745**	**0.0217**	**0.6946**	**0.0107**	**0.7053**	**0.1905**	**9.9800e-003**	**0.2005**	**0.0000**	**2,058.2111**	**2,058.2111**	**0.1264**	**0.0000**	**2,061.3700**

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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	0.2449	10.8825	2.8775	0.0165	0.1947	4.3100e-003	0.1990	0.0568	4.1100e-003	0.0609	0.0000	1,586.7728	1,586.7728	0.1118	0.0000	1,589.5683
Worker	0.5317	0.2115	2.9970	5.2400e-003	0.4999	6.3800e-003	0.5063	0.1337	5.8700e-003	0.1396	0.0000	471.4384	471.4384	0.0145	0.0000	471.8017
Total	**0.7766**	**11.0941**	**5.8745**	**0.0217**	**0.6946**	**0.0107**	**0.7053**	**0.1905**	**9.9800e-003**	**0.2005**	**0.0000**	**2,058.2111**	**2,058.2111**	**0.1264**	**0.0000**	**2,061.3700**

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.2344	10.7422	2.7633	0.0162	0.1939	4.1100e-003	0.1980	0.0566	3.9200e-003	0.0605	0.0000	1,564.8769	1,564.8769	0.1074	0.0000	1,567.5608
Worker	0.4923	0.1894	2.7414	5.0100e-003	0.4980	6.2900e-003	0.5043	0.1332	5.7900e-003	0.1390	0.0000	450.8677	450.8677	0.0130	0.0000	451.1917

Total	**0.7267**	**10.9316**	**5.5046**	**0.0213**	**0.6919**	**0.0104**	**0.7023**	**0.1898**	**9.7100e-003**	**0.1995**	**0.0000**	**2,015.7446**	**2,015.7446**	**0.1203**	**0.0000**	**2,018.7525**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.2344	10.7422	2.7633	0.0162	0.1939	4.1100e-003	0.1980	0.0566	3.9200e-003	0.0605	0.0000	1,564.8769	1,564.8769	0.1074	0.0000	1,567.5608
Worker	0.4923	0.1894	2.7414	5.0100e-003	0.4980	6.2900e-003	0.5043	0.1332	5.7900e-003	0.1390	0.0000	450.8677	450.8677	0.0130	0.0000	451.1917
Total	**0.7267**	**10.9316**	**5.5046**	**0.0213**	**0.6919**	**0.0104**	**0.7023**	**0.1898**	**9.7100e-003**	**0.1995**	**0.0000**	**2,015.7446**	**2,015.7446**	**0.1203**	**0.0000**	**2,018.7525**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.2268	10.6492	2.6890	0.0161	0.1939	3.9200e-003	0.1979	0.0566	3.7400e-003	0.0603	0.0000	1,551.0416	1,551.0416	0.1037	0.0000	1,553.6348
Worker	0.4598	0.1714	2.5338	4.8200e-003	0.4980	6.1700e-003	0.5042	0.1332	5.6700e-003	0.1389	0.0000	434.2361	434.2361	0.0117	0.0000	434.5280
Total	**0.6866**	**10.8206**	**5.2228**	**0.0209**	**0.6919**	**0.0101**	**0.7020**	**0.1898**	**9.4100e-003**	**0.1992**	**0.0000**	**1,985.2777**	**1,985.2777**	**0.1154**	**0.0000**	**1,988.1628**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.2268	10.6492	2.6890	0.0161	0.1939	3.9200e-003	0.1979	0.0566	3.7400e-003	0.0603	0.0000	1,551.0416	1,551.0416	0.1037	0.0000	1,553.6348
Worker	0.4598	0.1714	2.5338	4.8200e-003	0.4980	6.1700e-003	0.5042	0.1332	5.6700e-003	0.1389	0.0000	434.2361	434.2361	0.0117	0.0000	434.5280
Total	**0.6866**	**10.8206**	**5.2228**	**0.0209**	**0.6919**	**0.0101**	**0.7020**	**0.1898**	**9.4100e-003**	**0.1992**	**0.0000**	**1,985.2777**	**1,985.2777**	**0.1154**	**0.0000**	**1,988.1628**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2185**	**292.2185**	**0.0687**	**0.0000**	**293.9358**

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	0.2129	10.1983	2.5401	0.0154	0.1873	3.6300e-003	0.1909	0.0546	3.4600e-003	0.0581	0.0000	1,486.0490	1,486.0490	0.0969	0.0000	1,488.4707
Worker	0.4150	0.1503	2.2696	4.4900e-003	0.4808	5.7200e-003	0.4866	0.1286	5.2700e-003	0.1339	0.0000	404.9287	404.9287	0.0102	0.0000	405.1833
Total	**0.6279**	**10.3485**	**4.8096**	**0.0199**	**0.6681**	**9.3500e-003**	**0.6775**	**0.1833**	**8.7300e-003**	**0.1920**	**0.0000**	**1,890.9777**	**1,890.9777**	**0.1071**	**0.0000**	**1,893.6540**

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	0.0672	1.3749	2.2521	3.4000e-003		0.0107	0.0107		0.0107	0.0107	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355
Total	**0.0672**	**1.3749**	**2.2521**	**3.4000e-003**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**292.2182**	**292.2182**	**0.0687**	**0.0000**	**293.9355**

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	0.2129	10.1983	2.5401	0.0154	0.1873	3.6300e-003	0.1909	0.0546	3.4600e-003	0.0581	0.0000	1,486.0490	1,486.0490	0.0969	0.0000	1,488.4707
Worker	0.4150	0.1503	2.2696	4.4900e-003	0.4808	5.7200e-003	0.4866	0.1286	5.2700e-003	0.1339	0.0000	404.9287	404.9287	0.0102	0.0000	405.1833
Total	**0.6279**	**10.3485**	**4.8096**	**0.0199**	**0.6681**	**9.3500e-003**	**0.6775**	**0.1833**	**8.7300e-003**	**0.1920**	**0.0000**	**1,890.9777**	**1,890.9777**	**0.1071**	**0.0000**	**1,893.6540**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0423**	**0.0423**	**0.0000**	**0.0000**	**0.0423**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5000e-003	0.0452	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
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-003**	**0.0452**	**0.0778**	**1.0000e-004**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0423**	**0.0423**	**0.0000**	**0.0000**	**0.0423**

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1165**	**121.1165**	**0.0392**	**0.0000**	**122.0958**

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	**5.4000e-004**	**1.9000e-004**	**2.9700e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.5502**	**0.5502**	**1.0000e-005**	**0.0000**	**0.5506**

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	0.0202	0.6074	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.6074**	**1.0464**	**1.3800e-003**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**121.1164**	**121.1164**	**0.0392**	**0.0000**	**122.0956**

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	**5.4000e-004**	**1.9000e-004**	**2.9700e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.5502**	**0.5502**	**1.0000e-005**	**0.0000**	**0.5506**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	30.7973					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	**30.8084**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5962**	**16.5962**	**9.1000e-004**	**0.0000**	**16.6188**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0400	0.0141	0.2183	4.5000e-004	0.0496	5.6000e-004	0.0502	0.0133	5.1000e-004	0.0138	0.0000	40.4745	40.4745	9.5000e-004	0.0000	40.4984
Total	**0.0400**	**0.0141**	**0.2183**	**4.5000e-004**	**0.0496**	**5.6000e-004**	**0.0502**	**0.0133**	**5.1000e-004**	**0.0138**	**0.0000**	**40.4745**	**40.4745**	**9.5000e-004**	**0.0000**	**40.4984**

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	30.7973					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5400e-003	0.0689	0.1191	1.9000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	**30.8008**	**0.0689**	**0.1191**	**1.9000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**16.5961**	**16.5961**	**9.1000e-004**	**0.0000**	**16.6188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0400	0.0141	0.2183	4.5000e-004	0.0496	5.6000e-004	0.0502	0.0133	5.1000e-004	0.0138	0.0000	40.4745	40.4745	9.5000e-004	0.0000	40.4984
Total	**0.0400**	**0.0141**	**0.2183**	**4.5000e-004**	**0.0496**	**5.6000e-004**	**0.0502**	**0.0133**	**5.1000e-004**	**0.0138**	**0.0000**	**40.4745**	**40.4745**	**9.5000e-004**	**0.0000**	**40.4984**

Vallco, Cupertino - Retail and Res - Santa Clara County, Annual

Vallco, Cupertino - Retail and Res

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	10,773.00	Space	0.00	4,309,200.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	4,000.00	Dwelling Unit	58.00	4,000,000.00	11440
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free for electricity use

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT -

Demolition - 2,170,350 sf demo

Grading - 2,000,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - Low VOC (50 g/L) paint, no hearth

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	600.00	1,280.00
tblFireplaces	NumberWood	680.00	0.00
tblGrading	MaterialExported	0.00	2,000,000.00
tblLandUse	LotAcreage	96.96	0.00
tblLandUse	LotAcreage	11.30	0.00
tblLandUse	LotAcreage	105.26	58.00
tblLandUse	LotAcreage	13.77	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	CC_TL	7.30	5.00

tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	5.00
tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.39	4.15
tblVehicleTrips	ST_TR	8.19	6.72
tblVehicleTrips	ST_TR	49.97	31.48
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	SU_TR	5.86	3.81
tblVehicleTrips	SU_TR	5.95	4.88
tblVehicleTrips	SU_TR	25.24	15.90
tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	WD_TR	6.65	4.35
tblVehicleTrips	WD_TR	8.17	6.69
tblVehicleTrips	WD_TR	42.70	27.11
tblVehicleTrips	WD_TR	0.00	808.00
tblWoodstoves	NumberCatalytic	80.00	0.00
tblWoodstoves	NumberNoncatalytic	80.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

2019	0.9067	18.4242	5.7827	0.0388	4.1297	0.3225	4.4523	1.1533	0.2998	1.4531	0.0000	3,707.0545	3,707.0545	0.3012	0.0000	3,714.5838
2020	2.6387	40.9764	19.5965	0.1250	5.9755	0.3647	6.3401	1.6657	0.3419	2.0076	0.0000	11,856.2534	11,856.2534	0.6217	0.0000	11,871.7962
2021	2.8528	21.2990	22.0421	0.0980	6.3945	0.1973	6.5917	1.7267	0.1855	1.9122	0.0000	9,100.8541	9,100.8541	0.3655	0.0000	9,109.9918
2022	2.6434	19.8764	20.4346	0.0954	6.3700	0.1713	6.5413	1.7202	0.1610	1.8812	0.0000	8,866.0284	8,866.0284	0.3447	0.0000	8,874.6468
2023	2.3769	15.5743	18.8595	0.0923	6.3701	0.1373	6.5074	1.7202	0.1288	1.8489	0.0000	8,582.6335	8,582.6335	0.3077	0.0000	8,590.3269
2024	2.2640	15.3006	17.9194	0.0909	6.4192	0.1262	6.5454	1.7334	0.1183	1.8518	0.0000	8,460.6606	8,460.6606	0.2986	0.0000	8,468.1244
2025	2.1402	14.8550	16.8646	0.0885	6.3947	0.1139	6.5086	1.7268	0.1067	1.8336	0.0000	8,243.8852	8,243.8852	0.2872	0.0000	8,251.0644
2026	2.0542	14.6137	16.0539	0.0867	6.3948	0.1128	6.5076	1.7269	0.1057	1.8326	0.0000	8,080.9467	8,080.9467	0.2787	0.0000	8,087.9151
2027	1.9082	13.9208	14.8738	0.0823	6.1749	0.1091	6.2840	1.6675	0.1022	1.7697	0.0000	7,670.8492	7,670.8492	0.2646	0.0000	7,677.4642
2028	34.9558	0.6672	1.9152	5.3200e-003	0.5320	0.0313	0.5634	0.1415	0.0291	0.1706	0.0000	476.8941	476.8941	0.0451	0.0000	478.0215
Maximum	**34.9558**	**40.9764**	**22.0421**	**0.1250**	**6.4192**	**0.3647**	**6.5917**	**1.7334**	**0.3419**	**2.0076**	**0.0000**	**11,856.2534**	**11,856.2534**	**0.6217**	**0.0000**	**11,871.7962**

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					
2019	0.4756	14.7424	6.0762	0.0388	2.3575	0.0586	2.4161	0.6264	0.0565	0.6829	0.0000	3,707.0539	3,707.0539	0.3012	0.0000	3,714.5832
2020	2.3114	38.4314	19.9720	0.1250	5.3998	0.1624	5.5622	1.4668	0.1552	1.6220	0.0000	11,856.2528	11,856.2528	0.6217	0.0000	11,871.7956
2021	2.6743	20.4481	22.2116	0.0980	6.3945	0.0832	6.4777	1.7267	0.0789	1.8056	0.0000	9,100.8537	9,100.8537	0.3655	0.0000	9,109.9914
2022	2.4909	19.2649	20.6310	0.0954	6.3700	0.0771	6.4471	1.7202	0.0731	1.7932	0.0000	8,866.0280	8,866.0280	0.3447	0.0000	8,874.6465
2023	2.2418	15.1228	19.0713	0.0923	6.3701	0.0573	6.4274	1.7202	0.0542	1.7743	0.0000	8,582.6332	8,582.6332	0.3077	0.0000	8,590.3266
2024	2.1411	14.9690	18.1430	0.0909	6.4192	0.0570	6.4761	1.7334	0.0538	1.7873	0.0000	8,460.6603	8,460.6603	0.2986	0.0000	8,468.1240

2025	2.0314	14.6518	17.0981	0.0885	6.3947	0.0561	6.4508	1.7268	0.0530	1.7798	0.0000	8,243.8848	8,243.8848	0.2872	0.0000	8,251.0640
2026	1.9454	14.4104	16.2874	0.0867	6.3948	0.0550	6.4498	1.7269	0.0520	1.7789	0.0000	8,080.9463	8,080.9463	0.2787	0.0000	8,087.9147
2027	1.8005	13.7311	15.1114	0.0823	6.1749	0.0516	6.2265	1.6675	0.0488	1.7163	0.0000	7,670.8489	7,670.8489	0.2646	0.0000	7,677.4639
2028	34.9131	0.7498	2.0811	5.3200e-003	0.5320	5.2000e-003	0.5372	0.1415	4.9800e-003	0.1465	0.0000	476.8939	476.8939	0.0451	0.0000	478.0214
Maximum	**34.9131**	**38.4314**	**22.2116**	**0.1250**	**6.4192**	**0.1624**	**6.4777**	**1.7334**	**0.1552**	**1.8056**	**0.0000**	**11,856.2528**	**11,856.2528**	**0.6217**	**0.0000**	**11,871.7956**

	ROG	NOx	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	**3.13**	**5.12**	**-1.52**	**0.00**	**4.26**	**60.66**	**5.93**	**4.84**	**60.07**	**10.11**	**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	**1-1-2019**	**3-31-2019**	2.0521	1.2436
2	**4-1-2019**	**6-30-2019**	2.0549	1.2374
3	**7-1-2019**	**9-30-2019**	1.6482	0.4351
4	**10-1-2019**	**12-31-2019**	13.7374	12.4685
5	**1-1-2020**	**3-31-2020**	15.1614	14.0445
6	**4-1-2020**	**6-30-2020**	14.7503	13.6422
7	**7-1-2020**	**9-30-2020**	6.6572	6.3333
8	**10-1-2020**	**12-31-2020**	6.8381	6.5141
9	**1-1-2021**	**3-31-2021**	6.0350	5.7815
10	**4-1-2021**	**6-30-2021**	5.9506	5.6942
11	**7-1-2021**	**9-30-2021**	6.0160	5.7568
12	**10-1-2021**	**12-31-2021**	6.1691	5.9100
13	**1-1-2022**	**3-31-2022**	5.6466	5.4578
14	**4-1-2022**	**6-30-2022**	5.5730	5.3820
15	**7-1-2022**	**9-30-2022**	5.6342	5.4411
16	**10-1-2022**	**12-31-2022**	5.7721	5.5790
17	**1-1-2023**	**3-31-2023**	4.5117	4.3666
18	**4-1-2023**	**6-30-2023**	4.4502	4.3035

19	7-1-2023	9-30-2023	4.4991	4.3508
20	10-1-2023	12-31-2023	4.6119	4.4637
21	1-1-2024	3-31-2024	4.4269	4.3141
22	4-1-2024	6-30-2024	4.3218	4.2090
23	7-1-2024	9-30-2024	4.3693	4.2553
24	10-1-2024	12-31-2024	4.4755	4.3615
25	1-1-2025	3-31-2025	4.2504	4.1736
26	4-1-2025	6-30-2025	4.1984	4.1207
27	7-1-2025	9-30-2025	4.2446	4.1660
28	10-1-2025	12-31-2025	4.3449	4.2663
29	1-1-2026	3-31-2026	4.1665	4.0896
30	4-1-2026	6-30-2026	4.1183	4.0406
31	7-1-2026	9-30-2026	4.1636	4.0850
32	10-1-2026	12-31-2026	4.2590	4.1805
33	1-1-2027	3-31-2027	4.0848	4.0080
34	4-1-2027	6-30-2027	4.0406	3.9629
35	7-1-2027	9-30-2027	4.0850	4.0064
36	10-1-2027	12-31-2027	3.7139	3.6481
37	1-1-2028	3-31-2028	0.3104	0.3389
38	4-1-2028	6-30-2028	2.3906	2.4149
39	7-1-2028	9-30-2028	17.7138	17.7072
		Highest	17.7138	17.7072

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	24.5584	0.4807	29.8384	2.4600e-003		0.1762	0.1762		0.1762	0.1762	0.0000	208.5188	208.5188	0.0501	2.9300e-003	210.6434
Energy	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	3,083.9170	3,083.9170	0.0591	0.0565	3,102.2432
Mobile	5.3291	22.3264	58.1774	0.2394	26.8852	0.1696	27.0548	7.1950	0.1576	7.3526	0.0000	22,025.6177	22,025.6177	0.6544	0.0000	22,041.9770
Waste						0.0000	0.0000		0.0000	0.0000	539.0628	0.0000	539.0628	31.8577	0.0000	1,335.5053
Water						0.0000	0.0000		0.0000	0.0000	99.5095	0.0000	99.5095	10.2206	0.2413	426.9404
Total	**30.1991**	**25.5384**	**89.6500**	**0.2589**	**26.8852**	**0.5610**	**27.4463**	**7.1950**	**0.5491**	**7.7441**	**638.5723**	**25,318.0535**	**25,956.6258**	**42.8418**	**0.3008**	**27,117.3093**

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	22.6016	0.3428	29.7797	1.5800e-003		0.1650	0.1650		0.1650	0.1650	0.0000	48.7245	48.7245	0.0470	0.0000	49.8996
Energy	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	3,083.9170	3,083.9170	0.0591	0.0565	3,102.2432
Mobile	5.3291	22.3264	58.1774	0.2394	26.8852	0.1696	27.0548	7.1950	0.1576	7.3526	0.0000	22,025.6177	22,025.6177	0.6544	0.0000	22,041.9770
Waste						0.0000	0.0000		0.0000	0.0000	539.0628	0.0000	539.0628	31.8577	0.0000	1,335.5053
Water						0.0000	0.0000		0.0000	0.0000	99.5095	0.0000	99.5095	10.2206	0.2413	426.9404
Total	**28.2423**	**25.4004**	**89.5913**	**0.2580**	**26.8852**	**0.5499**	**27.4351**	**7.1950**	**0.5379**	**7.7329**	**638.5723**	**25,158.2592**	**25,796.8315**	**42.8388**	**0.2979**	**26,956.5654**

	ROG	NOx	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	**6.48**	**0.54**	**0.07**	**0.34**	**0.00**	**1.99**	**0.04**	**0.00**	**2.03**	**0.14**	**0.00**	**0.63**	**0.62**	**0.01**	**0.97**	**0.59**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 8,100,000; Residential Outdoor: 2,700,000; Non-Residential Indoor: 1,638,342; Non-Residential Outdoor: 546,114;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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	9,872.00	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	8	20.00	0.00	250,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5,089.00	1,313.00	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	1,018.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

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

Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**1.0682**	**0.1167**	**1.1849**	**0.1617**	**0.1085**	**0.2703**	**0.0000**	**225.0711**	**225.0711**	**0.0626**	**0.0000**	**226.6365**

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**0.0484**	**1.5395**	**0.3308**	**4.0100e-003**	**0.0914**	**5.9500e-003**	**0.0973**	**0.0251**	**5.6900e-003**	**0.0308**	**0.0000**	**387.2356**	**387.2356**	**0.0180**	**0.0000**	**387.6859**

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					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0380	0.8812	1.6038	2.5200e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	**0.0380**	**0.8812**	**1.6038**	**2.5200e-003**	**0.2403**	**4.0100e-003**	**0.2444**	**0.0364**	**4.0100e-003**	**0.0404**	**0.0000**	**225.0709**	**225.0709**	**0.0626**	**0.0000**	**226.6362**

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	**0.0484**	**1.5395**	**0.3308**	**4.0100e-003**	**0.0914**	**5.9500e-003**	**0.0973**	**0.0251**	**5.6900e-003**	**0.0308**	**0.0000**	**387.2356**	**387.2356**	**0.0180**	**0.0000**	**387.6859**

3.3 Site Preparation - 2019

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					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.7046**	**0.0932**	**0.7978**	**0.3873**	**0.0858**	**0.4731**	**0.0000**	**133.2579**	**133.2579**	**0.0422**	**0.0000**	**134.3119**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.4743	0.8954	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	**0.0272**	**0.4743**	**0.8954**	**1.4800e-003**	**0.1585**	**2.4200e-003**	**0.1610**	**0.0871**	**2.4200e-003**	**0.0896**	**0.0000**	**133.2577**	**133.2577**	**0.0422**	**0.0000**	**134.3118**

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	**2.5500e-003**	**1.9000e-003**	**0.0196**	**5.0000e-005**	**5.5700e-003**	**4.0000e-005**	**5.6000e-003**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**0.0000**	**4.9286**	**4.9286**	**1.3000e-004**	**0.0000**	**4.9320**

3.4 Grading - 2019

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					0.5139	0.0000	0.5139	0.1309	0.0000	0.1309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.5139**	**0.0631**	**0.5771**	**0.1309**	**0.0581**	**0.1890**	**0.0000**	**147.6085**	**147.6085**	**0.0467**	**0.0000**	**148.7760**

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	0.3308	11.3334	2.2386	0.0290	1.7418	0.0435	1.7853	0.4457	0.0416	0.4874	0.0000	2,805.2317	2,805.2317	0.1315	0.0000	2,808.5180
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**0.3328**	**11.3348**	**2.2534**	**0.0291**	**1.7460**	**0.0435**	**1.7896**	**0.4469**	**0.0417**	**0.4885**	**0.0000**	**2,808.9528**	**2,808.9528**	**0.1316**	**0.0000**	**2,812.2415**

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					0.1156	0.0000	0.1156	0.0295	0.0000	0.0295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.5107	0.9732	1.6400e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	**0.0268**	**0.5107**	**0.9732**	**1.6400e-003**	**0.1156**	**2.6900e-003**	**0.1183**	**0.0295**	**2.6900e-003**	**0.0321**	**0.0000**	**147.6083**	**147.6083**	**0.0467**	**0.0000**	**148.7759**

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	0.3308	11.3334	2.2386	0.0290	1.7418	0.0435	1.7853	0.4457	0.0416	0.4874	0.0000	2,805.2317	2,805.2317	0.1315	0.0000	2,808.5180
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	**0.3328**	**11.3348**	**2.2534**	**0.0291**	**1.7460**	**0.0435**	**1.7896**	**0.4469**	**0.0417**	**0.4885**	**0.0000**	**2,808.9528**	**2,808.9528**	**0.1316**	**0.0000**	**2,812.2415**

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					0.7428	0.0000	0.7428	0.2567	0.0000	0.2567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.7428**	**0.1402**	**0.8830**	**0.2567**	**0.1290**	**0.3857**	**0.0000**	**351.4237**	**351.4237**	**0.1137**	**0.0000**	**354.2651**

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	0.7362	25.7100	5.2653	0.0698	1.9640	0.0835	2.0475	0.5264	0.0799	0.6063	0.0000	6,757.5088	6,757.5088	0.3091	0.0000	6,765.2369
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**0.7405**	**25.7131**	**5.2976**	**0.0699**	**1.9742**	**0.0836**	**2.0578**	**0.5291**	**0.0800**	**0.6091**	**0.0000**	**6,766.2828**	**6,766.2828**	**0.3093**	**0.0000**	**6,774.0162**

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					0.1671	0.0000	0.1671	0.0578	0.0000	0.0578	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0652	1.2430	2.3686	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	**0.0652**	**1.2430**	**2.3686**	**4.0000e-003**	**0.1671**	**6.5500e-003**	**0.1737**	**0.0578**	**6.5500e-003**	**0.0643**	**0.0000**	**351.4233**	**351.4233**	**0.1137**	**0.0000**	**354.2647**

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	0.7362	25.7100	5.2653	0.0698	1.9640	0.0835	2.0475	0.5264	0.0799	0.6063	0.0000	6,757.5088	6,757.5088	0.3091	0.0000	6,765.2369
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	**0.7405**	**25.7131**	**5.2976**	**0.0699**	**1.9742**	**0.0836**	**2.0578**	**0.5291**	**0.0800**	**0.6091**	**0.0000**	**6,766.2828**	**6,766.2828**	**0.3093**	**0.0000**	**6,774.0162**

3.5 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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600
Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0206**	**154.0206**	**0.0376**	**0.0000**	**154.9600**

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	0.3460	9.9419	2.6479	0.0238	0.5744	0.0492	0.6236	0.1661	0.0471	0.2132	0.0000	2,282.7746	2,282.7746	0.1047	0.0000	2,285.3917
Worker	1.1241	0.8077	8.4694	0.0255	2.6841	0.0173	2.7014	0.7138	0.0160	0.7298	0.0000	2,301.7517	2,301.7517	0.0565	0.0000	2,303.1632
Total	**1.4701**	**10.7497**	**11.1172**	**0.0493**	**3.2584**	**0.0666**	**3.3250**	**0.8799**	**0.0631**	**0.9430**	**0.0000**	**4,584.5263**	**4,584.5263**	**0.1612**	**0.0000**	**4,588.5549**

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	0.0355	0.7257	1.1886	1.7900e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	**0.0355**	**0.7257**	**1.1886**	**1.7900e-003**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**154.0205**	**154.0205**	**0.0376**	**0.0000**	**154.9598**

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	0.3460	9.9419	2.6479	0.0238	0.5744	0.0492	0.6236	0.1661	0.0471	0.2132	0.0000	2,282.7746	2,282.7746	0.1047	0.0000	2,285.3917
Worker	1.1241	0.8077	8.4694	0.0255	2.6841	0.0173	2.7014	0.7138	0.0160	0.7298	0.0000	2,301.7517	2,301.7517	0.0565	0.0000	2,303.1632
Total	**1.4701**	**10.7497**	**11.1172**	**0.0493**	**3.2584**	**0.0666**	**3.3250**	**0.8799**	**0.0631**	**0.9430**	**0.0000**	**4,584.5263**	**4,584.5263**	**0.1612**	**0.0000**	**4,588.5549**

3.5 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.5588	17.6075	4.6870	0.0463	1.1273	0.0390	1.1663	0.3259	0.0373	0.3632	0.0000	4,438.3780	4,438.3780	0.1934	0.0000	4,443.2135

Worker	2.0459	1.4166	15.1920	0.0482	5.2672	0.0332	5.3003	1.4008	0.0305	1.4314	0.0000	4,360.1895	4,360.1895	0.0992	0.0000	4,362.6684
Total	**2.6047**	**19.0241**	**19.8791**	**0.0945**	**6.3945**	**0.0722**	**6.4666**	**1.7267**	**0.0679**	**1.7946**	**0.0000**	**8,798.5674**	**8,798.5674**	**0.2926**	**0.0000**	**8,805.8819**

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	0.0696	1.4240	2.3325	3.5100e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.0696**	**1.4240**	**2.3325**	**3.5100e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.5588	17.6075	4.6870	0.0463	1.1273	0.0390	1.1663	0.3259	0.0373	0.3632	0.0000	4,438.3780	4,438.3780	0.1934	0.0000	4,443.2135
Worker	2.0459	1.4166	15.1920	0.0482	5.2672	0.0332	5.3003	1.4008	0.0305	1.4314	0.0000	4,360.1895	4,360.1895	0.0992	0.0000	4,362.6684
Total	**2.6047**	**19.0241**	**19.8791**	**0.0945**	**6.3945**	**0.0722**	**6.4666**	**1.7267**	**0.0679**	**1.7946**	**0.0000**	**8,798.5674**	**8,798.5674**	**0.2926**	**0.0000**	**8,805.8819**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.5194	16.5804	4.3975	0.0456	1.1230	0.0338	1.1568	0.3247	0.0323	0.3570	0.0000	4,379.0736	4,379.0736	0.1840	0.0000	4,383.6730
Worker	1.9021	1.2660	13.9099	0.0463	5.2470	0.0323	5.2793	1.3955	0.0297	1.4252	0.0000	4,185.7120	4,185.7120	0.0886	0.0000	4,187.9268
Total	**2.4215**	**17.8463**	**18.3074**	**0.0919**	**6.3700**	**0.0661**	**6.4361**	**1.7202**	**0.0621**	**1.7822**	**0.0000**	**8,564.7856**	**8,564.7856**	**0.2726**	**0.0000**	**8,571.5998**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.5194	16.5804	4.3975	0.0456	1.1230	0.0338	1.1568	0.3247	0.0323	0.3570	0.0000	4,379.0736	4,379.0736	0.1840	0.0000	4,383.6730
Worker	1.9021	1.2660	13.9099	0.0463	5.2470	0.0323	5.2793	1.3955	0.0297	1.4252	0.0000	4,185.7120	4,185.7120	0.0886	0.0000	4,187.9268
Total	**2.4215**	**17.8463**	**18.3074**	**0.0919**	**6.3700**	**0.0661**	**6.4361**	**1.7202**	**0.0621**	**1.7822**	**0.0000**	**8,564.7856**	**8,564.7856**	**0.2726**	**0.0000**	**8,571.5998**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

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	0.3914	12.5656	3.9498	0.0443	1.1231	0.0147	1.1378	0.3247	0.0140	0.3387	0.0000	4,254.5712	4,254.5712	0.1566	0.0000	4,258.4871
Worker	1.7811	1.1386	12.7980	0.0445	5.2470	0.0317	5.2787	1.3955	0.0291	1.4246	0.0000	4,026.7162	4,026.7162	0.0794	0.0000	4,028.7015
Total	**2.1724**	**13.7042**	**16.7478**	**0.0888**	**6.3701**	**0.0463**	**6.4164**	**1.7202**	**0.0432**	**1.7634**	**0.0000**	**8,281.2874**	**8,281.2874**	**0.2361**	**0.0000**	**8,287.1886**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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	0.3914	12.5656	3.9498	0.0443	1.1231	0.0147	1.1378	0.3247	0.0140	0.3387	0.0000	4,254.5712	4,254.5712	0.1566	0.0000	4,258.4871
Worker	1.7811	1.1386	12.7980	0.0445	5.2470	0.0317	5.2787	1.3955	0.0291	1.4246	0.0000	4,026.7162	4,026.7162	0.0794	0.0000	4,028.7015
Total	**2.1724**	**13.7042**	**16.7478**	**0.0888**	**6.3701**	**0.0463**	**6.4164**	**1.7202**	**0.0432**	**1.7634**	**0.0000**	**8,281.2874**	**8,281.2874**	**0.2361**	**0.0000**	**8,287.1886**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.3818	12.5025	3.8432	0.0443	1.1318	0.0146	1.1464	0.3272	0.0139	0.3412	0.0000	4,258.6305	4,258.6305	0.1546	0.0000	4,262.4958
Worker	1.6894	1.0370	11.9584	0.0431	5.2874	0.0313	5.3187	1.4062	0.0288	1.4350	0.0000	3,898.3078	3,898.3078	0.0721	0.0000	3,900.1107
Total	**2.0712**	**13.5395**	**15.8016**	**0.0874**	**6.4192**	**0.0459**	**6.4651**	**1.7334**	**0.0428**	**1.7762**	**0.0000**	**8,156.9383**	**8,156.9383**	**0.2267**	**0.0000**	**8,162.6065**

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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	0.3818	12.5025	3.8432	0.0443	1.1318	0.0146	1.1464	0.3272	0.0139	0.3412	0.0000	4,258.6305	4,258.6305	0.1546	0.0000	4,262.4958
Worker	1.6894	1.0370	11.9584	0.0431	5.2874	0.0313	5.3187	1.4062	0.0288	1.4350	0.0000	3,898.3078	3,898.3078	0.0721	0.0000	3,900.1107

Total	**2.0712**	**13.5395**	**15.8016**	**0.0874**	**6.4192**	**0.0459**	**6.4651**	**1.7334**	**0.0428**	**1.7762**	**0.0000**	**8,156.9383**	**8,156.9383**	**0.2267**	**0.0000**	**8,162.6065**

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.3698	12.2887	3.7269	0.0438	1.1275	0.0143	1.1418	0.3260	0.0136	0.3397	0.0000	4,214.8536	4,214.8536	0.1510	0.0000	4,218.6285
Worker	1.5919	0.9390	11.0386	0.0412	5.2672	0.0308	5.2980	1.4008	0.0283	1.4292	0.0000	3,726.3766	3,726.3766	0.0650	0.0000	3,728.0023
Total	**1.9617**	**13.2277**	**14.7656**	**0.0850**	**6.3947**	**0.0451**	**6.4398**	**1.7268**	**0.0420**	**1.7688**	**0.0000**	**7,941.2303**	**7,941.2303**	**0.2160**	**0.0000**	**7,946.6309**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.3698	12.2887	3.7269	0.0438	1.1275	0.0143	1.1418	0.3260	0.0136	0.3397	0.0000	4,214.8536	4,214.8536	0.1510	0.0000	4,218.6285
Worker	1.5919	0.9390	11.0386	0.0412	5.2672	0.0308	5.2980	1.4008	0.0283	1.4292	0.0000	3,726.3766	3,726.3766	0.0650	0.0000	3,728.0023
Total	**1.9617**	**13.2277**	**14.7656**	**0.0850**	**6.3947**	**0.0451**	**6.4398**	**1.7268**	**0.0420**	**1.7688**	**0.0000**	**7,941.2303**	**7,941.2303**	**0.2160**	**0.0000**	**7,946.6309**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

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

Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.3610	12.1260	3.6543	0.0436	1.1276	0.0140	1.1416	0.3260	0.0134	0.3394	0.0000	4,189.8411	4,189.8411	0.1483	0.0000	4,193.5490
Worker	1.5147	0.8604	10.3006	0.0396	5.2672	0.0299	5.2971	1.4008	0.0275	1.4284	0.0000	3,588.4507	3,588.4507	0.0593	0.0000	3,589.9326
Total	**1.8757**	**12.9864**	**13.9549**	**0.0832**	**6.3948**	**0.0440**	**6.4387**	**1.7269**	**0.0409**	**1.7678**	**0.0000**	**7,778.2918**	**7,778.2918**	**0.2076**	**0.0000**	**7,783.4816**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.3610	12.1260	3.6543	0.0436	1.1276	0.0140	1.1416	0.3260	0.0134	0.3394	0.0000	4,189.8411	4,189.8411	0.1483	0.0000	4,193.5490
Worker	1.5147	0.8604	10.3006	0.0396	5.2672	0.0299	5.2971	1.4008	0.0275	1.4284	0.0000	3,588.4507	3,588.4507	0.0593	0.0000	3,589.9326
Total	**1.8757**	**12.9864**	**13.9549**	**0.0832**	**6.3948**	**0.0440**	**6.4387**	**1.7269**	**0.0409**	**1.7678**	**0.0000**	**7,778.2918**	**7,778.2918**	**0.2076**	**0.0000**	**7,783.4816**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2185**	**292.2185**	**0.0687**	**0.0000**	**293.9358**

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	0.3412	11.5478	3.4702	0.0418	1.0888	0.0133	1.1021	0.3148	0.0127	0.3275	0.0000	4,022.7476	4,022.7476	0.1407	0.0000	4,026.2657
Worker	1.3904	0.7630	9.3103	0.0370	5.0856	0.0275	5.1130	1.3525	0.0253	1.3778	0.0000	3,346.5222	3,346.5222	0.0523	0.0000	3,347.8288
Total	**1.7316**	**12.3109**	**12.7805**	**0.0788**	**6.1743**	**0.0408**	**6.2151**	**1.6673**	**0.0380**	**1.7053**	**0.0000**	**7,369.2698**	**7,369.2698**	**0.1930**	**0.0000**	**7,374.0945**

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	0.0672	1.3749	2.2521	3.4000e-003		0.0107	0.0107		0.0107	0.0107	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355
Total	**0.0672**	**1.3749**	**2.2521**	**3.4000e-003**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**292.2182**	**292.2182**	**0.0687**	**0.0000**	**293.9355**

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	0.3412	11.5478	3.4702	0.0418	1.0888	0.0133	1.1021	0.3148	0.0127	0.3275	0.0000	4,022.7476	4,022.7476	0.1407	0.0000	4,026.2657
Worker	1.3904	0.7630	9.3103	0.0370	5.0856	0.0275	5.1130	1.3525	0.0253	1.3778	0.0000	3,346.5222	3,346.5222	0.0523	0.0000	3,347.8288
Total	**1.7316**	**12.3109**	**12.7805**	**0.0788**	**6.1743**	**0.0408**	**6.2151**	**1.6673**	**0.0380**	**1.7053**	**0.0000**	**7,369.2698**	**7,369.2698**	**0.1930**	**0.0000**	**7,374.0945**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5000e-003	0.0452	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
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-003**	**0.0452**	**0.0778**	**1.0000e-004**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	**1.5000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3523**	**0.3523**	**1.0000e-005**	**0.0000**	**0.3524**

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1165**	**121.1165**	**0.0392**	**0.0000**	**122.0958**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

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	0.0202	0.6074	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.6074**	**1.0464**	**1.3800e-003**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**121.1164**	**121.1164**	**0.0392**	**0.0000**	**122.0956**

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	**1.8600e-003**	**1.0000e-003**	**0.0124**	**5.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**4.5888**	**4.5888**	**7.0000e-005**	**0.0000**	**4.5905**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	34.7517					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	**34.7628**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5962**	**16.5962**	**9.1000e-004**	**0.0000**	**16.6188**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1358	0.0726	0.9032	3.7000e-003	0.5248	2.6400e-003	0.5274	0.1396	2.4300e-003	0.1420	0.0000	334.5926	334.5926	4.9500e-003	0.0000	334.7165
Total	**0.1358**	**0.0726**	**0.9032**	**3.7000e-003**	**0.5248**	**2.6400e-003**	**0.5274**	**0.1396**	**2.4300e-003**	**0.1420**	**0.0000**	**334.5926**	**334.5926**	**4.9500e-003**	**0.0000**	**334.7165**

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	34.7517					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5400e-003	0.0689	0.1191	1.9000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	**34.7552**	**0.0689**	**0.1191**	**1.9000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**16.5961**	**16.5961**	**9.1000e-004**	**0.0000**	**16.6188**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1358	0.0726	0.9032	3.7000e-003	0.5248	2.6400e-003	0.5274	0.1396	2.4300e-003	0.1420	0.0000	334.5926	334.5926	4.9500e-003	0.0000	334.7165
Total	**0.1358**	**0.0726**	**0.9032**	**3.7000e-003**	**0.5248**	**2.6400e-003**	**0.5274**	**0.1396**	**2.4300e-003**	**0.1420**	**0.0000**	**334.5926**	**334.5926**	**4.9500e-003**	**0.0000**	**334.7165**

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	5.3291	22.3264	58.1774	0.2394	26.8852	0.1696	27.0548	7.1950	0.1576	7.3526	0.0000	22,025.6177	22,025.6177	0.6544	0.0000	22,041.9770
Unmitigated	5.3291	22.3264	58.1774	0.2394	26.8852	0.1696	27.0548	7.1950	0.1576	7.3526	0.0000	22,025.6177	22,025.6177	0.6544	0.0000	22,041.9770

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	17,400.00	16,600.00	15240.00	39,210,533	39,210,533
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	2,267.91	2,278.08	1654.32	4,145,093	4,145,093
Regional Shopping Center	16,266.00	18,888.00	9540.00	27,491,319	27,491,319
User Defined Parking	808.00	808.00	808.00	1,470,560	1,470,560

Total	36,741.91	38,574.08	27,242.32	72,317,504	72,317,504

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
User Defined Parking	5.00	5.00	5.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Hotel	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
User Defined Parking	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	3,083.9170	3,083.9170	0.0591	0.0565	3,102.2432
NaturalGas Unmitigated	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	3,083.9170	3,083.9170	0.0591	0.0565	3,102.2432

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.45578e+007	0.1863	1.5924	0.6776	0.0102		0.1287	0.1287		0.1287	0.1287	0.0000	1,844.1358	1,844.1358	0.0354	0.0338	1,855.0946
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3116**	**2.7312**	**1.6342**	**0.0170**		**0.2153**	**0.2153**		**0.2153**	**0.2153**	**0.0000**	**3,083.9170**	**3,083.9170**	**0.0591**	**0.0565**	**3,102.2432**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.45578e+007	0.1863	1.5924	0.6776	0.0102		0.1287	0.1287		0.1287	0.1287	0.0000	1,844.1358	1,844.1358	0.0354	0.0338	1,855.0946
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3116**	**2.7312**	**1.6342**	**0.0170**		**0.2153**	**0.2153**		**0.2153**	**0.2153**	**0.0000**	**3,083.9170**	**3,083.9170**	**0.0591**	**0.0565**	**3,102.2432**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.65134e+007	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.52519e+007	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.65134e+007	0.0000	0.0000	0.0000	0.0000

Enclosed Parking with Elevator	2.52519e+007	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	22.6016	0.3428	29.7797	1.5800e-003		0.1650	0.1650		0.1650	0.1650	0.0000	48.7245	48.7245	0.0470	0.0000	49.8996
Unmitigated	24.5584	0.4807	29.8384	2.4600e-003		0.1762	0.1762		0.1762	0.1762	0.0000	208.5188	208.5188	0.0501	2.9300e-003	210.6434

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	3.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.1663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0162	0.1380	0.0587	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.7943	159.7943	3.0600e-003	2.9300e-003	160.7439
Landscaping	0.9008	0.3428	29.7797	1.5800e-003		0.1650	0.1650		0.1650	0.1650	0.0000	48.7245	48.7245	0.0470	0.0000	49.8996
Total	**24.5584**	**0.4807**	**29.8384**	**2.4600e-003**		**0.1762**	**0.1762**		**0.1762**	**0.1762**	**0.0000**	**208.5188**	**208.5188**	**0.0501**	**2.9300e-003**	**210.6434**

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	1.5345					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.1663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9008	0.3428	29.7797	1.5800e-003		0.1650	0.1650		0.1650	0.1650	0.0000	48.7245	48.7245	0.0470	0.0000	49.8996
Total	**22.6016**	**0.3428**	**29.7797**	**1.5800e-003**		**0.1650**	**0.1650**		**0.1650**	**0.1650**	**0.0000**	**48.7245**	**48.7245**	**0.0470**	**0.0000**	**49.8996**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	99.5095	10.2206	0.2413	426.9404
Unmitigated	99.5095	10.2206	0.2413	426.9404

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	260.616 / 164.301	82.6815	8.4922	0.2005	354.7405
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051
Regional Shopping Center	44.4435 / 27.2396	14.0999	1.4482	0.0342	60.4948
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**99.5095**	**10.2206**	**0.2413**	**426.9404**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	260.616 / 164.301	82.6815	8.4922	0.2005	354.7405
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051
Regional Shopping Center	44.4435 / 27.2396	14.0999	1.4482	0.0342	60.4948
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**99.5095**	**10.2206**	**0.2413**	**426.9404**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	539.0628	31.8577	0.0000	1,335.5053
Unmitigated	539.0628	31.8577	0.0000	1,335.5053

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1840	373.5034	22.0734	0.0000	925.3388
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**539.0628**	**31.8577**	**0.0000**	**1,335.5053**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1840	373.5034	22.0734	0.0000	925.3388
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**539.0628**	**31.8577**	**0.0000**	**1,335.5053**

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

Vallco, Cupertino - Retail and Res, Construction TAC Tier 4

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	10,773.00	Space	0.00	4,309,200.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	4,000.00	Dwelling Unit	58.00	4,000,000.00	11440
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
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 CO2 rate

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT - 1 mi trip lengths to calculate from on- and near-site vehicle travel.

Demolition - 2,170,350 sf demo

Grading - 2,000,000 cy soil export

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblGrading	MaterialExported	0.00	2,000,000.00
tblLandUse	LotAcreage	96.96	0.00
tblLandUse	LotAcreage	11.30	0.00
tblLandUse	LotAcreage	105.26	58.00
tblLandUse	LotAcreage	13.77	0.00
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					
2019	0.6261	9.9774	3.9340	0.0112	2.3805	0.2787	2.6591	0.7041	0.2578	0.9619	0.0000	1,043.3215	1,043.3215	0.2141	0.0000	1,048.6743
2020	1.1616	19.6630	8.5218	0.0281	1.1759	0.2360	1.4119	0.3747	0.2193	0.5940	0.0000	2,633.3592	2,633.3592	0.3539	0.0000	2,642.2072
2021	1.2093	13.4652	9.0214	0.0235	0.6520	0.1409	0.7928	0.1782	0.1325	0.3107	0.0000	2,186.4265	2,186.4265	0.2199	0.0000	2,191.9226
2022	1.1028	12.7907	8.3940	0.0231	0.6495	0.1195	0.7690	0.1776	0.1124	0.2900	0.0000	2,147.3364	2,147.3364	0.2086	0.0000	2,152.5504
2023	0.9780	11.0041	7.7742	0.0224	0.6495	0.1010	0.7505	0.1776	0.0949	0.2725	0.0000	2,083.5774	2,083.5774	0.1818	0.0000	2,088.1213
2024	0.9197	10.8569	7.4382	0.0222	0.6545	0.0902	0.7447	0.1789	0.0848	0.2637	0.0000	2,066.6956	2,066.6956	0.1775	0.0000	2,071.1339
2025	0.8578	10.5865	7.0727	0.0217	0.6520	0.0784	0.7304	0.1783	0.0737	0.2520	0.0000	2,027.3589	2,027.3589	0.1717	0.0000	2,031.6501
2026	0.8194	10.4927	6.8063	0.0214	0.6520	0.0782	0.7302	0.1783	0.0734	0.2517	0.0000	1,999.5759	1,999.5759	0.1674	0.0000	2,003.7614
2027	0.7616	10.0861	6.4162	0.0205	0.6296	0.0770	0.7066	0.1721	0.0723	0.2444	0.0000	1,916.0707	1,916.0707	0.1608	0.0000	1,920.0907
2028	34.8584	0.6078	1.2189	2.0200e-003	0.0499	0.0292	0.0791	0.0133	0.0272	0.0405	0.0000	178.3827	178.3827	0.0410	0.0000	179.4086
Maximum	**34.8584**	**19.6630**	**9.0214**	**0.0281**	**2.3805**	**0.2787**	**2.6591**	**0.7041**	**0.2578**	**0.9619**	**0.0000**	**2,633.3592**	**2,633.3592**	**0.3539**	**0.0000**	**2,642.2072**

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					
2019	0.1917	6.1260	4.1617	0.0112	0.6083	0.0148	0.6230	0.1772	0.0145	0.1917	0.0000	1,043.3209	1,043.3209	0.2141	0.0000	1,048.6737
2020	0.8263	16.7052	8.7370	0.0281	0.6003	0.0337	0.6339	0.1758	0.0326	0.2084	0.0000	2,633.3586	2,633.3586	0.3539	0.0000	2,642.2066
2021	1.0309	12.6144	9.1908	0.0235	0.6520	0.0268	0.6788	0.1782	0.0259	0.2041	0.0000	2,186.4261	2,186.4261	0.2199	0.0000	2,191.9223
2022	0.9503	12.1792	8.5903	0.0231	0.6495	0.0253	0.6748	0.1776	0.0245	0.2020	0.0000	2,147.3361	2,147.3361	0.2086	0.0000	2,152.5500
2023	0.8429	10.5526	7.9860	0.0224	0.6495	0.0210	0.6705	0.1776	0.0203	0.1979	0.0000	2,083.5771	2,083.5771	0.1818	0.0000	2,088.1210
2024	0.7969	10.5252	7.6618	0.0222	0.6545	0.0209	0.6754	0.1789	0.0203	0.1992	0.0000	2,066.6952	2,066.6952	0.1775	0.0000	2,071.1336
2025	0.7490	10.3832	7.3062	0.0217	0.6520	0.0206	0.6726	0.1783	0.0200	0.1982	0.0000	2,027.3585	2,027.3585	0.1717	0.0000	2,031.6498
2026	0.7106	10.2894	7.0398	0.0214	0.6520	0.0204	0.6724	0.1783	0.0197	0.1980	0.0000	1,999.5755	1,999.5755	0.1674	0.0000	2,003.7610
2027	0.6537	9.8873	6.6539	0.0205	0.6296	0.0195	0.6491	0.1721	0.0189	0.1910	0.0000	1,916.0704	1,916.0704	0.1608	0.0000	1,920.0903
2028	34.8124	0.5685	1.3848	2.0200e-003	0.0499	3.0800e-003	0.0529	0.0133	3.0300e-003	0.0164	0.0000	178.3825	178.3825	0.0410	0.0000	179.4084
Maximum	**34.8124**	**16.7052**	**9.1908**	**0.0281**	**0.6545**	**0.0337**	**0.6788**	**0.1789**	**0.0326**	**0.2084**	**0.0000**	**2,633.3586**	**2,633.3586**	**0.3539**	**0.0000**	**2,642.2066**

	ROG	NOx	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	**4.00**	**8.86**	**-3.18**	**0.00**	**28.83**	**83.24**	**35.96**	**31.11**	**82.61**	**48.10**	**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	**1-1-2019**	**3-31-2019**	1.5268	0.7182
2	**4-1-2019**	**6-30-2019**	1.5511	0.7336
3	**7-1-2019**	**9-30-2019**	1.6402	0.4271
4	**10-1-2019**	**12-31-2019**	5.8523	4.4086
5	**1-1-2020**	**3-31-2020**	6.3974	5.0685

6	**4-1-2020**	**6-30-2020**	6.4953	5.1774
7	**7-1-2020**	**9-30-2020**	3.9824	3.6585
8	**10-1-2020**	**12-31-2020**	3.9092	3.5853
9	**1-1-2021**	**3-31-2021**	3.5877	3.3341
10	**4-1-2021**	**6-30-2021**	3.6984	3.4420
11	**7-1-2021**	**9-30-2021**	3.7390	3.4798
12	**10-1-2021**	**12-31-2021**	3.6674	3.4082
13	**1-1-2022**	**3-31-2022**	3.4088	3.2199
14	**4-1-2022**	**6-30-2022**	3.5152	3.3242
15	**7-1-2022**	**9-30-2022**	3.5539	3.3608
16	**10-1-2022**	**12-31-2022**	3.4846	3.2915
17	**1-1-2023**	**3-31-2023**	2.9451	2.8001
18	**4-1-2023**	**6-30-2023**	3.0314	2.8847
19	**7-1-2023**	**9-30-2023**	3.0647	2.9164
20	**10-1-2023**	**12-31-2023**	3.0106	2.8623
21	**1-1-2024**	**3-31-2024**	2.9038	2.7910
22	**4-1-2024**	**6-30-2024**	2.9560	2.8432
23	**7-1-2024**	**9-30-2024**	2.9885	2.8745
24	**10-1-2024**	**12-31-2024**	2.9357	2.8217
25	**1-1-2025**	**3-31-2025**	2.8009	2.7240
26	**4-1-2025**	**6-30-2025**	2.8831	2.8054
27	**7-1-2025**	**9-30-2025**	2.9148	2.8362
28	**10-1-2025**	**12-31-2025**	2.8631	2.7846
29	**1-1-2026**	**3-31-2026**	2.7682	2.6914
30	**4-1-2026**	**6-30-2026**	2.8490	2.7713
31	**7-1-2026**	**9-30-2026**	2.8803	2.8017
32	**10-1-2026**	**12-31-2026**	2.8298	2.7512
33	**1-1-2027**	**3-31-2027**	2.7383	2.6614
34	**4-1-2027**	**6-30-2027**	2.8177	2.7400
35	**7-1-2027**	**9-30-2027**	2.8486	2.7701

36	**10-1-2027**	**12-31-2027**	2.5018	2.4280
37	**1-1-2028**	**3-31-2028**	0.3090	0.2703
38	**4-1-2028**	**6-30-2028**	2.3810	2.3461
39	**7-1-2028**	**9-30-2028**	17.6412	17.6346
		Highest	17.6412	17.6346

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	33.7715	0.5552	42.4884	0.0269		1.9820	1.9820		1.9820	1.9820	182.3588	123.6281	305.9869	0.3401	0.0120	318.0528
Energy	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	9,914.8938	9,914.8938	0.7422	0.1979	9,992.4139
Mobile	7.9882	33.4694	87.2525	0.3591	40.3358	0.2543	40.5902	10.7947	0.2364	11.0311	0.0000	33,041.2048	33,041.2048	0.9814	0.0000	33,065.7401
Waste						0.0000	0.0000		0.0000	0.0000	539.0628	0.0000	539.0628	31.8577	0.0000	1,335.5053
Water						0.0000	0.0000		0.0000	0.0000	99.5095	311.8785	411.3880	10.2518	0.2478	741.5215
Total	**42.0713**	**36.7558**	**131.3751**	**0.4030**	**40.3358**	**2.4516**	**42.7875**	**10.7947**	**2.4337**	**13.2284**	**820.9311**	**43,391.6052**	**44,212.5363**	**44.1732**	**0.4576**	**45,453.2336**

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	33.7715	0.5552	42.4884	0.0269		1.9820	1.9820		1.9820	1.9820	182.3588	123.6281	305.9869	0.3401	0.0120	318.0528

Energy	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	9,914.8938	9,914.8938	0.7422	0.1979	9,992.4139
Mobile	7.9882	33.4694	87.2525	0.3591	40.3358	0.2543	40.5902	10.7947	0.2364	11.0311	0.0000	33,041.2048	33,041.2048	0.9814	0.0000	33,065.7401
Waste						0.0000	0.0000		0.0000	0.0000	539.0628	0.0000	539.0628	31.8577	0.0000	1,335.5053
Water						0.0000	0.0000		0.0000	0.0000	99.5095	311.8785	411.3880	10.2518	0.2478	741.5215
Total	**42.0713**	**36.7558**	**131.3751**	**0.4030**	**40.3358**	**2.4516**	**42.7875**	**10.7947**	**2.4337**	**13.2284**	**820.9311**	**43,391.6052**	**44,212.5363**	**44.1732**	**0.4576**	**45,453.2336**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 8,100,000; Residential Outdoor: 2,700,000; Non-Residential Indoor: 1,638,342; Non-Residential Outdoor: 546,114;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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	9,872.00	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	8	20.00	0.00	250,000.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5,089.00	1,313.00	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	1,018.00	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

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	**0.2284**	**2.3259**	**1.4339**	**2.5200e-003**	**1.0682**	**0.1167**	**1.1849**	**0.1617**	**0.1085**	**0.2703**	**0.0000**	**225.0711**	**225.0711**	**0.0626**	**0.0000**	**226.6365**

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	0.0120	0.5288	0.0882	6.6000e-004	4.2800e-003	6.7000e-004	4.9500e-003	1.1900e-003	6.4000e-004	1.8300e-003	0.0000	63.9471	63.9471	7.4700e-003	0.0000	64.1339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-003	5.7000e-004	7.2000e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8179	0.8179	4.0000e-005	0.0000	0.8188
Total	**0.0132**	**0.5293**	**0.0954**	**6.7000e-004**	**5.0000e-003**	**6.8000e-004**	**5.6800e-003**	**1.3800e-003**	**6.5000e-004**	**2.0300e-003**	**0.0000**	**64.7650**	**64.7650**	**7.5100e-003**	**0.0000**	**64.9527**

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					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0380	0.8812	1.6038	2.5200e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	**0.0380**	**0.8812**	**1.6038**	**2.5200e-003**	**0.2403**	**4.0100e-003**	**0.2444**	**0.0364**	**4.0100e-003**	**0.0404**	**0.0000**	**225.0709**	**225.0709**	**0.0626**	**0.0000**	**226.6362**

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	0.0120	0.5288	0.0882	6.6000e-004	4.2800e-003	6.7000e-004	4.9500e-003	1.1900e-003	6.4000e-004	1.8300e-003	0.0000	63.9471	63.9471	7.4700e-003	0.0000	64.1339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-003	5.7000e-004	7.2000e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8179	0.8179	4.0000e-005	0.0000	0.8188
Total	**0.0132**	**0.5293**	**0.0954**	**6.7000e-004**	**5.0000e-003**	**6.8000e-004**	**5.6800e-003**	**1.3800e-003**	**6.5000e-004**	**2.0300e-003**	**0.0000**	**64.7650**	**64.7650**	**7.5100e-003**	**0.0000**	**64.9527**

3.3 Site Preparation - 2019

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					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	**0.1691**	**1.7773**	**0.8605**	**1.4800e-003**	**0.7046**	**0.0932**	**0.7978**	**0.3873**	**0.0858**	**0.4731**	**0.0000**	**133.2579**	**133.2579**	**0.0422**	**0.0000**	**134.3119**

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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	**8.6000e-004**	**4.1000e-004**	**5.1900e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.5889**	**0.5889**	**3.0000e-005**	**0.0000**	**0.5896**

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0272	0.4743	0.8954	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	**0.0272**	**0.4743**	**0.8954**	**1.4800e-003**	**0.1585**	**2.4200e-003**	**0.1610**	**0.0871**	**2.4200e-003**	**0.0896**	**0.0000**	**133.2577**	**133.2577**	**0.0422**	**0.0000**	**134.3118**

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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	**8.6000e-004**	**4.1000e-004**	**5.1900e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.5889**	**0.5889**	**3.0000e-005**	**0.0000**	**0.5896**

3.4 Grading - 2019

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					0.5139	0.0000	0.5139	0.1309	0.0000	0.1309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	**0.1256**	**1.4448**	**0.8845**	**1.6400e-003**	**0.5139**	**0.0631**	**0.5771**	**0.1309**	**0.0581**	**0.1890**	**0.0000**	**147.6085**	**147.6085**	**0.0467**	**0.0000**	**148.7760**

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	0.0884	3.8993	0.6506	4.8800e-003	0.0878	4.9400e-003	0.0928	0.0226	4.7300e-003	0.0273	0.0000	471.5855	471.5855	0.0551	0.0000	472.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.1000e-004	3.9200e-003	0.0000	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4446	0.4446	2.0000e-005	0.0000	0.4451
Total	**0.0890**	**3.8997**	**0.6545**	**4.8800e-003**	**0.0882**	**4.9500e-003**	**0.0932**	**0.0227**	**4.7400e-003**	**0.0274**	**0.0000**	**472.0301**	**472.0301**	**0.0551**	**0.0000**	**473.4076**

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					0.1156	0.0000	0.1156	0.0295	0.0000	0.0295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.3411	0.9073	1.6400e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	**0.0235**	**0.3411**	**0.9073**	**1.6400e-003**	**0.1156**	**2.6900e-003**	**0.1183**	**0.0295**	**2.6900e-003**	**0.0321**	**0.0000**	**147.6083**	**147.6083**	**0.0467**	**0.0000**	**148.7759**

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	0.0884	3.8993	0.6506	4.8800e-003	0.0878	4.9400e-003	0.0928	0.0226	4.7300e-003	0.0273	0.0000	471.5855	471.5855	0.0551	0.0000	472.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.1000e-004	3.9200e-003	0.0000	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4446	0.4446	2.0000e-005	0.0000	0.4451
Total	**0.0890**	**3.8997**	**0.6545**	**4.8800e-003**	**0.0882**	**4.9500e-003**	**0.0932**	**0.0227**	**4.7400e-003**	**0.0274**	**0.0000**	**472.0301**	**472.0301**	**0.0551**	**0.0000**	**473.4076**

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					0.7428	0.0000	0.7428	0.2567	0.0000	0.2567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	**0.2870**	**3.2377**	**2.0613**	**4.0000e-003**	**0.7428**	**0.1402**	**0.8830**	**0.2567**	**0.1290**	**0.3857**	**0.0000**	**351.4237**	**351.4237**	**0.1137**	**0.0000**	**354.2651**

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	0.1924	9.1376	1.4917	0.0119	0.1000	8.6000e-003	0.1086	0.0270	8.2300e-003	0.0352	0.0000	1,150.7217	1,150.7217	0.1224	0.0000	1,153.7818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	**0.1939**	**9.1382**	**1.5002**	**0.0119**	**0.1009**	**8.6100e-003**	**0.1096**	**0.0272**	**8.2400e-003**	**0.0355**	**0.0000**	**1,151.7707**	**1,151.7707**	**0.1225**	**0.0000**	**1,154.8319**

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					0.1671	0.0000	0.1671	0.0578	0.0000	0.0578	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0572	0.8301	2.2083	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	**0.0572**	**0.8301**	**2.2083**	**4.0000e-003**	**0.1671**	**6.5500e-003**	**0.1737**	**0.0578**	**6.5500e-003**	**0.0643**	**0.0000**	**351.4233**	**351.4233**	**0.1137**	**0.0000**	**354.2647**

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	0.1924	9.1376	1.4917	0.0119	0.1000	8.6000e-003	0.1086	0.0270	8.2300e-003	0.0352	0.0000	1,150.7217	1,150.7217	0.1224	0.0000	1,153.7818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	**0.1939**	**9.1382**	**1.5002**	**0.0119**	**0.1009**	**8.6100e-003**	**0.1096**	**0.0272**	**8.2400e-003**	**0.0355**	**0.0000**	**1,151.7707**	**1,151.7707**	**0.1225**	**0.0000**	**1,154.8319**

3.5 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	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600
Total	**0.1410**	**1.2759**	**1.1204**	**1.7900e-003**		**0.0743**	**0.0743**		**0.0699**	**0.0699**	**0.0000**	**154.0206**	**154.0206**	**0.0376**	**0.0000**	**154.9600**

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	0.1649	5.8395	1.6208	7.3000e-003	0.0807	9.4300e-003	0.0901	0.0235	9.0100e-003	0.0325	0.0000	700.9409	700.9409	0.0684	0.0000	702.6508
Worker	0.3749	0.1717	2.2191	3.0700e-003	0.2516	3.4500e-003	0.2550	0.0673	3.1700e-003	0.0705	0.0000	275.2033	275.2033	0.0118	0.0000	275.4993
Total	**0.5398**	**6.0112**	**3.8399**	**0.0104**	**0.3322**	**0.0129**	**0.3451**	**0.0908**	**0.0122**	**0.1030**	**0.0000**	**976.1442**	**976.1442**	**0.0802**	**0.0000**	**978.1501**

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	0.0355	0.7257	1.1886	1.7900e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	**0.0355**	**0.7257**	**1.1886**	**1.7900e-003**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**154.0205**	**154.0205**	**0.0376**	**0.0000**	**154.9598**

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	0.1649	5.8395	1.6208	7.3000e-003	0.0807	9.4300e-003	0.0901	0.0235	9.0100e-003	0.0325	0.0000	700.9409	700.9409	0.0684	0.0000	702.6508
Worker	0.3749	0.1717	2.2191	3.0700e-003	0.2516	3.4500e-003	0.2550	0.0673	3.1700e-003	0.0705	0.0000	275.2033	275.2033	0.0118	0.0000	275.4993
Total	**0.5398**	**6.0112**	**3.8399**	**0.0104**	**0.3322**	**0.0129**	**0.3451**	**0.0908**	**0.0122**	**0.1030**	**0.0000**	**976.1442**	**976.1442**	**0.0802**	**0.0000**	**978.1501**

3.5 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.2891	10.8934	2.9341	0.0142	0.1583	9.1600e-003	0.1675	0.0462	8.7500e-003	0.0549	0.0000	1,362.4150	1,362.4150	0.1264	0.0000	1,365.5750
Worker	0.6722	0.2969	3.9242	5.8100e-003	0.4937	6.6100e-003	0.5003	0.1321	6.0800e-003	0.1382	0.0000	521.7248	521.7248	0.0205	0.0000	522.2378
Total	**0.9613**	**11.1903**	**6.8583**	**0.0200**	**0.6520**	**0.0158**	**0.6677**	**0.1782**	**0.0148**	**0.1931**	**0.0000**	**1,884.1398**	**1,884.1398**	**0.1469**	**0.0000**	**1,887.8128**

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	0.0696	1.4240	2.3325	3.5100e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.0696**	**1.4240**	**2.3325**	**3.5100e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.2891	10.8934	2.9341	0.0142	0.1583	9.1600e-003	0.1675	0.0462	8.7500e-003	0.0549	0.0000	1,362.4150	1,362.4150	0.1264	0.0000	1,365.5750
Worker	0.6722	0.2969	3.9242	5.8100e-003	0.4937	6.6100e-003	0.5003	0.1321	6.0800e-003	0.1382	0.0000	521.7248	521.7248	0.0205	0.0000	522.2378
Total	**0.9613**	**11.1903**	**6.8583**	**0.0200**	**0.6520**	**0.0158**	**0.6677**	**0.1782**	**0.0148**	**0.1931**	**0.0000**	**1,884.1398**	**1,884.1398**	**0.1469**	**0.0000**	**1,887.8128**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	0.2666	10.4988	2.7252	0.0140	0.1577	7.8700e-003	0.1656	0.0460	7.5200e-003	0.0535	0.0000	1,344.9130	1,344.9130	0.1183	0.0000	1,347.8702
Worker	0.6144	0.2619	3.5416	5.5700e-003	0.4918	6.4600e-003	0.4982	0.1316	5.9500e-003	0.1375	0.0000	501.1806	501.1806	0.0181	0.0000	501.6331
Total	**0.8810**	**10.7607**	**6.2667**	**0.0196**	**0.6495**	**0.0143**	**0.6638**	**0.1776**	**0.0135**	**0.1910**	**0.0000**	**1,846.0936**	**1,846.0936**	**0.1364**	**0.0000**	**1,849.5033**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	0.2666	10.4988	2.7252	0.0140	0.1577	7.8700e-003	0.1656	0.0460	7.5200e-003	0.0535	0.0000	1,344.9130	1,344.9130	0.1183	0.0000	1,347.8702
Worker	0.6144	0.2619	3.5416	5.5700e-003	0.4918	6.4600e-003	0.4982	0.1316	5.9500e-003	0.1375	0.0000	501.1806	501.1806	0.0181	0.0000	501.6331

Total	**0.8810**	**10.7607**	**6.2667**	**0.0196**	**0.6495**	**0.0143**	**0.6638**	**0.1776**	**0.0135**	**0.1910**	**0.0000**	**1,846.0936**	**1,846.0936**	**0.1364**	**0.0000**	**1,849.5033**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

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	0.2080	8.9012	2.4453	0.0135	0.1577	3.6500e-003	0.1614	0.0460	3.4900e-003	0.0495	0.0000	1,299.7938	1,299.7938	0.0940	0.0000	1,302.1445
Worker	0.5655	0.2328	3.2171	5.3600e-003	0.4918	6.3600e-003	0.4981	0.1316	5.8500e-003	0.1374	0.0000	482.4375	482.4375	0.0160	0.0000	482.8385
Total	**0.7735**	**9.1340**	**5.6625**	**0.0189**	**0.6495**	**0.0100**	**0.6595**	**0.1776**	**9.3400e-003**	**0.1869**	**0.0000**	**1,782.2313**	**1,782.2313**	**0.1101**	**0.0000**	**1,784.9830**

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	0.0694	1.4186	2.3236	3.5000e-003		0.0110	0.0110		0.0110	0.0110	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.0694**	**1.4186**	**2.3236**	**3.5000e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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	0.2080	8.9012	2.4453	0.0135	0.1577	3.6500e-003	0.1614	0.0460	3.4900e-003	0.0495	0.0000	1,299.7938	1,299.7938	0.0940	0.0000	1,302.1445
Worker	0.5655	0.2328	3.2171	5.3600e-003	0.4918	6.3600e-003	0.4981	0.1316	5.8500e-003	0.1374	0.0000	482.4375	482.4375	0.0160	0.0000	482.8385
Total	**0.7735**	**9.1340**	**5.6625**	**0.0189**	**0.6495**	**0.0100**	**0.6595**	**0.1776**	**9.3400e-003**	**0.1869**	**0.0000**	**1,782.2313**	**1,782.2313**	**0.1101**	**0.0000**	**1,784.9830**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

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

Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.2000	8.8860	2.3496	0.0135	0.1589	3.5200e-003	0.1625	0.0464	3.3600e-003	0.0497	0.0000	1,295.6671	1,295.6671	0.0913	0.0000	1,297.9497
Worker	0.5270	0.2097	2.9708	5.1900e-003	0.4955	6.3300e-003	0.5019	0.1326	5.8200e-003	0.1384	0.0000	467.3062	467.3062	0.0144	0.0000	467.6663
Total	**0.7270**	**9.0957**	**5.3203**	**0.0186**	**0.6545**	**9.8500e-003**	**0.6643**	**0.1789**	**9.1800e-003**	**0.1881**	**0.0000**	**1,762.9732**	**1,762.9732**	**0.1057**	**0.0000**	**1,765.6160**

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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	0.2000	8.8860	2.3496	0.0135	0.1589	3.5200e-003	0.1625	0.0464	3.3600e-003	0.0497	0.0000	1,295.6671	1,295.6671	0.0913	0.0000	1,297.9497
Worker	0.5270	0.2097	2.9708	5.1900e-003	0.4955	6.3300e-003	0.5019	0.1326	5.8200e-003	0.1384	0.0000	467.3062	467.3062	0.0144	0.0000	467.6663
Total	**0.7270**	**9.0957**	**5.3203**	**0.0186**	**0.6545**	**9.8500e-003**	**0.6643**	**0.1789**	**9.1800e-003**	**0.1881**	**0.0000**	**1,762.9732**	**1,762.9732**	**0.1057**	**0.0000**	**1,765.6160**

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.1914	8.7715	2.2563	0.0133	0.1584	3.3500e-003	0.1617	0.0462	3.2000e-003	0.0494	0.0000	1,277.7882	1,277.7882	0.0877	0.0000	1,279.9796
Worker	0.4880	0.1877	2.7173	4.9600e-003	0.4937	6.2400e-003	0.4999	0.1321	5.7400e-003	0.1378	0.0000	446.9158	446.9158	0.0129	0.0000	447.2370
Total	**0.6794**	**8.9592**	**4.9736**	**0.0182**	**0.6520**	**9.5900e-003**	**0.6616**	**0.1783**	**8.9400e-003**	**0.1872**	**0.0000**	**1,724.7040**	**1,724.7040**	**0.1005**	**0.0000**	**1,727.2166**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.1914	8.7715	2.2563	0.0133	0.1584	3.3500e-003	0.1617	0.0462	3.2000e-003	0.0494	0.0000	1,277.7882	1,277.7882	0.0877	0.0000	1,279.9796
Worker	0.4880	0.1877	2.7173	4.9600e-003	0.4937	6.2400e-003	0.4999	0.1321	5.7400e-003	0.1378	0.0000	446.9158	446.9158	0.0129	0.0000	447.2370
Total	**0.6794**	**8.9592**	**4.9736**	**0.0182**	**0.6520**	**9.5900e-003**	**0.6616**	**0.1783**	**8.9400e-003**	**0.1872**	**0.0000**	**1,724.7040**	**1,724.7040**	**0.1005**	**0.0000**	**1,727.2166**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.1852	8.6955	2.1957	0.0131	0.1584	3.2000e-003	0.1616	0.0462	3.0600e-003	0.0493	0.0000	1,266.4910	1,266.4910	0.0847	0.0000	1,268.6085
Worker	0.4558	0.1699	2.5116	4.7800e-003	0.4937	6.1100e-003	0.4998	0.1321	5.6200e-003	0.1377	0.0000	430.4300	430.4300	0.0116	0.0000	430.7193
Total	**0.6409**	**8.8654**	**4.7073**	**0.0179**	**0.6520**	**9.3100e-003**	**0.6613**	**0.1783**	**8.6800e-003**	**0.1869**	**0.0000**	**1,696.9210**	**1,696.9210**	**0.0963**	**0.0000**	**1,699.3279**

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	0.0696	1.4240	2.3325	3.5200e-003		0.0110	0.0110		0.0110	0.0110	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0696**	**1.4240**	**2.3325**	**3.5200e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	0.1852	8.6955	2.1957	0.0131	0.1584	3.2000e-003	0.1616	0.0462	3.0600e-003	0.0493	0.0000	1,266.4910	1,266.4910	0.0847	0.0000	1,268.6085
Worker	0.4558	0.1699	2.5116	4.7800e-003	0.4937	6.1100e-003	0.4998	0.1321	5.6200e-003	0.1377	0.0000	430.4300	430.4300	0.0116	0.0000	430.7193
Total	**0.6409**	**8.8654**	**4.7073**	**0.0179**	**0.6520**	**9.3100e-003**	**0.6613**	**0.1783**	**8.6800e-003**	**0.1869**	**0.0000**	**1,696.9210**	**1,696.9210**	**0.0963**	**0.0000**	**1,699.3279**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	**0.1723**	**1.5712**	**2.0267**	**3.4000e-003**		**0.0665**	**0.0665**		**0.0625**	**0.0625**	**0.0000**	**292.2185**	**292.2185**	**0.0687**	**0.0000**	**293.9358**

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	0.1738	8.3273	2.0741	0.0126	0.1529	2.9600e-003	0.1559	0.0446	2.8300e-003	0.0474	0.0000	1,213.4218	1,213.4218	0.0791	0.0000	1,215.3993
Worker	0.4113	0.1489	2.2497	4.4500e-003	0.4766	5.6700e-003	0.4823	0.1275	5.2200e-003	0.1327	0.0000	401.3795	401.3795	0.0101	0.0000	401.6318
Total	**0.5852**	**8.4763**	**4.3237**	**0.0170**	**0.6295**	**8.6300e-003**	**0.6382**	**0.1721**	**8.0500e-003**	**0.1802**	**0.0000**	**1,614.8013**	**1,614.8013**	**0.0892**	**0.0000**	**1,617.0311**

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	0.0672	1.3749	2.2521	3.4000e-003		0.0107	0.0107		0.0107	0.0107	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355

Total	**0.0672**	**1.3749**	**2.2521**	**3.4000e-003**		**0.0107**	**0.0107**		**0.0107**	**0.0107**	**0.0000**	**292.2182**	**292.2182**	**0.0687**	**0.0000**	**293.9355**

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	0.1738	8.3273	2.0741	0.0126	0.1529	2.9600e-003	0.1559	0.0446	2.8300e-003	0.0474	0.0000	1,213.4218	1,213.4218	0.0791	0.0000	1,215.3993
Worker	0.4113	0.1489	2.2497	4.4500e-003	0.4766	5.6700e-003	0.4823	0.1275	5.2200e-003	0.1327	0.0000	401.3795	401.3795	0.0101	0.0000	401.6318
Total	**0.5852**	**8.4763**	**4.3237**	**0.0170**	**0.6295**	**8.6300e-003**	**0.6382**	**0.1721**	**8.0500e-003**	**0.1802**	**0.0000**	**1,614.8013**	**1,614.8013**	**0.0892**	**0.0000**	**1,617.0311**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1200e-003**	**0.0386**	**0.0656**	**1.0000e-004**		**1.8800e-003**	**1.8800e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0423**	**0.0423**	**0.0000**	**0.0000**	**0.0423**

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	1.2600e-003	0.0361	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2600e-003**	**0.0361**	**0.0778**	**1.0000e-004**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**9.0087**	**9.0087**	**2.9100e-003**	**0.0000**	**9.0815**

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	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0423**	**0.0423**	**0.0000**	**0.0000**	**0.0423**

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0554**	**0.5192**	**0.8820**	**1.3800e-003**		**0.0253**	**0.0253**		**0.0233**	**0.0233**	**0.0000**	**121.1165**	**121.1165**	**0.0392**	**0.0000**	**122.0958**

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	**5.4000e-004**	**1.9000e-004**	**2.9700e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.5502**	**0.5502**	**1.0000e-005**	**0.0000**	**0.5506**

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	0.0170	0.4854	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0170**	**0.4854**	**1.0464**	**1.3800e-003**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**121.1164**	**121.1164**	**0.0392**	**0.0000**	**122.0956**

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	**5.4000e-004**	**1.9000e-004**	**2.9700e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.5502**	**0.5502**	**1.0000e-005**	**0.0000**	**0.5506**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	34.7517					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	**34.7628**	**0.0745**	**0.1176**	**1.9000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**16.5962**	**16.5962**	**9.1000e-004**	**0.0000**	**16.6188**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0396	0.0140	0.2164	4.5000e-004	0.0492	5.5000e-004	0.0497	0.0132	5.1000e-004	0.0137	0.0000	40.1198	40.1198	9.5000e-004	0.0000	40.1434
Total	**0.0396**	**0.0140**	**0.2164**	**4.5000e-004**	**0.0492**	**5.5000e-004**	**0.0497**	**0.0132**	**5.1000e-004**	**0.0137**	**0.0000**	**40.1198**	**40.1198**	**9.5000e-004**	**0.0000**	**40.1434**

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	34.7517					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5400e-003	0.0689	0.1191	1.9000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	**34.7552**	**0.0689**	**0.1191**	**1.9000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**16.5961**	**16.5961**	**9.1000e-004**	**0.0000**	**16.6188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0396	0.0140	0.2164	4.5000e-004	0.0492	5.5000e-004	0.0497	0.0132	5.1000e-004	0.0137	0.0000	40.1198	40.1198	9.5000e-004	0.0000	40.1434
Total	**0.0396**	**0.0140**	**0.2164**	**4.5000e-004**	**0.0492**	**5.5000e-004**	**0.0497**	**0.0132**	**5.1000e-004**	**0.0137**	**0.0000**	**40.1198**	**40.1198**	**9.5000e-004**	**0.0000**	**40.1434**

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	7.9882	33.4694	87.2525	0.3591	40.3358	0.2543	40.5902	10.7947	0.2364	11.0311	0.0000	33,041.2048	33,041.2048	0.9814	0.0000	33,065.7401
Unmitigated	7.9882	33.4694	87.2525	0.3591	40.3358	0.2543	40.5902	10.7947	0.2364	11.0311	0.0000	33,041.2048	33,041.2048	0.9814	0.0000	33,065.7401

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	26,600.00	25,560.00	23440.00	60,049,790	60,049,790
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	2,769.63	2,776.41	2017.05	5,059,681	5,059,681
Regional Shopping Center	25,620.00	29,982.00	15144.00	43,388,283	43,388,283
User Defined Parking	0.00	0.00	0.00		
Total	54,989.63	58,318.41	40,601.05	108,497,754	108,497,754

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
User Defined Parking	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Hotel	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
User Defined Parking	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

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	6,830.9768	6,830.9768	0.6831	0.1413	6,890.1707
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,830.9768	6,830.9768	0.6831	0.1413	6,890.1707
NaturalGas Mitigated	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	3,083.9170	3,083.9170	0.0591	0.0565	3,102.2432
NaturalGas Unmitigated	0.3116	2.7312	1.6342	0.0170		0.2153	0.2153		0.2153	0.2153	0.0000	3,083.9170	3,083.9170	0.0591	0.0565	3,102.2432

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.45578e+007	0.1863	1.5924	0.6776	0.0102		0.1287	0.1287		0.1287	0.1287	0.0000	1,844.1358	1,844.1358	0.0354	0.0338	1,855.0946
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343

User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3116**	**2.7312**	**1.6342**	**0.0170**		**0.2153**	**0.2153**		**0.2153**	**0.2153**	**0.0000**	**3,083.9170**	**3,083.9170**	**0.0591**	**0.0565**	**3,102.2432**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.45578e+007	0.1863	1.5924	0.6776	0.0102		0.1287	0.1287		0.1287	0.1287	0.0000	1,844.1358	1,844.1358	0.0354	0.0338	1,855.0946
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3116**	**2.7312**	**1.6342**	**0.0170**		**0.2153**	**0.2153**		**0.2153**	**0.2153**	**0.0000**	**3,083.9170**	**3,083.9170**	**0.0591**	**0.0565**	**3,102.2432**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.65134e+007	2,172.2022	0.2172	0.0449	2,191.0254
Enclosed Parking with Elevator	2.52519e+007	3,321.6816	0.3322	0.0687	3,350.4657
Hotel	3.75078e+006	493.3840	0.0493	0.0102	497.6594

Regional Shopping Center	6.414e+006	843.7090	0.0844	0.0175	851.0202
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**6,830.9768**	**0.6831**	**0.1413**	**6,890.1707**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.65134e+007	2,172.2022	0.2172	0.0449	2,191.0254
Enclosed Parking with Elevator	2.52519e+007	3,321.6816	0.3322	0.0687	3,350.4657
Hotel	3.75078e+006	493.3840	0.0493	0.0102	497.6594
Regional Shopping Center	6.414e+006	843.7090	0.0844	0.0175	851.0202
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**6,830.9768**	**0.6831**	**0.1413**	**6,890.1707**

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	33.7715	0.5552	42.4884	0.0269		1.9820	1.9820		1.9820	1.9820	182.3588	123.6281	305.9869	0.3401	0.0120	318.0528
Unmitigated	33.7715	0.5552	42.4884	0.0269		1.9820	1.9820		1.9820	1.9820	182.3588	123.6281	305.9869	0.3401	0.0120	318.0528

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	3.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.1663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	9.2293	0.2124	12.7087	0.0253		1.8170	1.8170		1.8170	1.8170	182.3588	74.9036	257.2624	0.2931	0.0120	268.1532
Landscaping	0.9008	0.3428	29.7797	1.5800e-003		0.1650	0.1650		0.1650	0.1650	0.0000	48.7245	48.7245	0.0470	0.0000	49.8996
Total	**33.7715**	**0.5552**	**42.4884**	**0.0269**		**1.9820**	**1.9820**		**1.9820**	**1.9820**	**182.3588**	**123.6281**	**305.9869**	**0.3401**	**0.0120**	**318.0528**

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	3.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.1663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	9.2293	0.2124	12.7087	0.0253		1.8170	1.8170		1.8170	1.8170	182.3588	74.9036	257.2624	0.2931	0.0120	268.1532
Landscaping	0.9008	0.3428	29.7797	1.5800e-003		0.1650	0.1650		0.1650	0.1650	0.0000	48.7245	48.7245	0.0470	0.0000	49.8996
Total	**33.7715**	**0.5552**	**42.4884**	**0.0269**		**1.9820**	**1.9820**		**1.9820**	**1.9820**	**182.3588**	**123.6281**	**305.9869**	**0.3401**	**0.0120**	**318.0528**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	411.3880	10.2518	0.2478	741.5215
Unmitigated	411.3880	10.2518	0.2478	741.5215

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	260.616 / 164.301	343.8246	8.5183	0.2059	618.1467
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	8.59934 / 0.955482	9.2888	0.2809	6.7500e-003	18.3226

Regional Shopping Center	44.4435 / 27.2396	58.2746	1.4526	0.0351	105.0523
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**411.3880**	**10.2518**	**0.2478**	**741.5215**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	260.616 / 164.301	343.8246	8.5183	0.2059	618.1467
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	8.59934 / 0.955482	9.2888	0.2809	6.7500e-003	18.3226
Regional Shopping Center	44.4435 / 27.2396	58.2746	1.4526	0.0351	105.0523
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**411.3880**	**10.2518**	**0.2478**	**741.5215**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	539.0628	31.8577	0.0000	1,335.5053
Unmitigated	539.0628	31.8577	0.0000	1,335.5053

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1840	373.5034	22.0734	0.0000	925.3388
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**539.0628**	**31.8577**	**0.0000**	**1,335.5053**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1840	373.5034	22.0734	0.0000	925.3388

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		**539.0628**	**31.8577**	**0.0000**	**1,335.5053**

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: I-280 Emissions and Risk Calculations

Highway 101 Emission Calculations and Roadway Modeling Parameters

Vallco Specific Plan, Cupertino, CA
I-280
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2029

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	Diesel ADT	Average Speed (mph)
EB I-280	Eastbound I-280	E	4	1138	68	20.6	3.4	2,390	variable
WB I-280	Westbound I-280	W	4	1137	68	20.6	3.4	2,390	variable

2029 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - EB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.52%	60	0.0041	9	6.37%	152	0.0032	17	5.87%	140	0.0030
2	1.56%	37	0.0046	10	7.01%	168	0.0032	18	4.19%	100	0.0029
3	1.64%	39	0.0050	11	6.34%	151	0.0032	19	3.61%	86	0.0028
4	2.13%	51	0.0038	12	6.75%	161	0.0032	20	2.79%	67	0.0023
5	1.30%	31	0.0041	13	6.35%	152	0.0031	21	4.19%	100	0.0028
6	2.20%	53	0.0037	14	6.25%	149	0.0031	22	5.00%	119	0.0029
7	6.28%	150	0.0030	15	5.59%	134	0.0030	23	1.63%	39	0.0041
8	5.15%	123	0.0029	16	4.75%	114	0.0029	24	0.52%	12	0.0042
								Total		2,390	

2029 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - WB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.52%	60	0.0041	9	6.37%	152	0.0055	17	5.87%	140	0.0031
2	1.56%	37	0.0046	10	7.01%	168	0.0032	18	4.19%	100	0.0030
3	1.64%	39	0.0050	11	6.34%	151	0.0032	19	3.61%	86	0.0028
4	2.13%	51	0.0038	12	6.75%	161	0.0032	20	2.79%	67	0.0023
5	1.30%	31	0.0041	13	6.35%	152	0.0031	21	4.19%	100	0.0028
6	2.20%	53	0.0037	14	6.25%	149	0.0031	22	5.00%	119	0.0029
7	6.28%	150	0.0030	15	5.59%	134	0.0030	23	1.63%	39	0.0041
8	5.15%	123	0.0049	16	4.75%	114	0.0029	24	0.52%	12	0.0042
								Total		2,390	

Vallco Specific Plan, Cupertino, CA
I-280
PM2.5 & TOG Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB I-280	Eastbound I-280	E	4	1138	68	20.6	1.3	91,530	variable
WB I-280	Westbound I-280	W	4	1137	68	20.6	1.3	91,530	variable

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.10%	1006	0.0206	9	7.08%	6481	0.0196	17	7.38%	6757	0.0193
2	0.37%	335	0.0214	10	4.29%	3924	0.0201	18	8.27%	7573	0.0191
3	0.30%	272	0.0218	11	4.61%	4216	0.0198	19	5.79%	5296	0.0192
4	0.20%	184	0.0274	12	5.85%	5357	0.0197	20	4.35%	3986	0.0192
5	0.46%	418	0.0210	13	6.17%	5650	0.0195	21	3.28%	3004	0.0194
6	0.83%	764	0.0216	14	6.03%	5522	0.0196	22	3.31%	3033	0.0196
7	3.78%	3460	0.0199	15	7.08%	6477	0.0194	23	2.47%	2263	0.0195
8	7.89%	7224	0.0193	16	7.21%	6602	0.0193	24	1.89%	1727	0.0192
								Total		91,530	

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.10%	1006	0.0206	9	7.08%	6481	0.0205	17	7.38%	6757	0.0194
2	0.37%	335	0.0214	10	4.29%	3924	0.0201	18	8.27%	7573	0.0192
3	0.30%	272	0.0218	11	4.61%	4216	0.0198	19	5.79%	5296	0.0192
4	0.20%	184	0.0274	12	5.85%	5357	0.0197	20	4.35%	3986	0.0192
5	0.46%	418	0.0210	13	6.17%	5650	0.0195	21	3.28%	3004	0.0194
6	0.83%	764	0.0216	14	6.03%	5522	0.0196	22	3.31%	3033	0.0196
7	3.78%	3460	0.0199	15	7.08%	6477	0.0194	23	2.47%	2263	0.0195
8	7.89%	7224	0.0201	16	7.21%	6602	0.0193	24	1.89%	1727	0.0192
								Total		91,530	

Vallco Specific Plan, Cupertino, CA
I-280
Entrained PM2.5 Road Dust Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB I-280	Eastbound I-280	E	4	1138	68	20.6	1.3	91,530	variable
WB I-280	Westbound I-280	W	4	1137	68	20.6	1.3	91,530	variable

2029 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - EB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.10%	1006	0.0100	9	7.08%	6481	0.0100	17	7.38%	6757	0.0100
2	0.37%	335	0.0100	10	4.29%	3924	0.0100	18	8.27%	7573	0.0100
3	0.30%	272	0.0100	11	4.61%	4216	0.0100	19	5.79%	5296	0.0100
4	0.20%	184	0.0100	12	5.85%	5357	0.0100	20	4.35%	3986	0.0100
5	0.46%	418	0.0100	13	6.17%	5650	0.0100	21	3.28%	3004	0.0100
6	0.83%	764	0.0100	14	6.03%	5522	0.0100	22	3.31%	3033	0.0100
7	3.78%	3460	0.0100	15	7.08%	6477	0.0100	23	2.47%	2263	0.0100
8	7.89%	7224	0.0100	16	7.21%	6602	0.0100	24	1.89%	1727	0.0100
								Total		91,530	

2029 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - WB I-280

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.10%	1006	0.0100	9	7.08%	6481	0.0100	17	7.38%	6757	0.0100
2	0.37%	335	0.0100	10	4.29%	3924	0.0100	18	8.27%	7573	0.0100
3	0.30%	272	0.0100	11	4.61%	4216	0.0100	19	5.79%	5296	0.0100
4	0.20%	184	0.0100	12	5.85%	5357	0.0100	20	4.35%	3986	0.0100
5	0.46%	418	0.0100	13	6.17%	5650	0.0100	21	3.28%	3004	0.0100
6	0.83%	764	0.0100	14	6.03%	5522	0.0100	22	3.31%	3033	0.0100
7	3.78%	3460	0.0100	15	7.08%	6477	0.0100	23	2.47%	2263	0.0100
8	7.89%	7224	0.0100	16	7.21%	6602	0.0100	24	1.89%	1727	0.0100
								Total		91,530	

Vallco Specific Plan, Cupertino, CA
I-280 Traffic Data and PM2.5 & TOG Emission Factors - 63 mph

Analysis Year = ***2029***

Vehicle Type	2016 Caltrans Number Vehicles (veh/day)	2029 Number Vehicles (veh/day)	2029 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	112,843	127,512	1.30%	1,658	65	0.0018	0.0189	0.0012	0.0078	0.037
LDT	44,038	49,763	0.19%	96	65	0.0037	0.0190	0.0012	0.0111	0.066
MDT	2,466	2,786	11.24%	313	60	0.0064	0.0220	0.0015	0.0165	0.156
HDT	2,654	2,999	90.45%	2,713	60	0.0037	0.0527	0.0033	0.0264	0.070
Total	162,001	183,061	-	4,780	62.5	-	-		-	-
Mix Avg Emission Factor						**0.00318**	**0.01955**	**0.00123**	**0.00883**	**0.04671**
Increase From 2016		1.13								
Vehicles/Direction		91,530		2,390						
Avg Vehicles/Hour/Direction		**3,814**		**100**						

Traffic Data Year = ***2016***

Caltrans Truck AADT		Total	Truck by Axle			
	Total	Truck	2	3	4	5
I-280 B Saratoga,Sunnyvale/De Anza B	162,000	5,119	2,466	505	138	2,011
			48.17%	9.86%	2.70%	39.28%
Percent of Total Vehicles		3.16%	1.52%	0.31%	0.09%	1.24%

Traffic Increase per Year (%) = ***1.00%***

Vallco Specific Plan, Cupertino, CA
I-280 Traffic Data and PM2.5 & TOG Emission Factors - 60 mph

Analysis Year = ***2029***

Vehicle Type	2016 Caltrans Number Vehicles (veh/day)	2029 Number Vehicles (veh/day)	2029 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	112,843	127,512	1.30%	1,658	60	0.0017	0.0188	0.0011	0.0069	0.037
LDT	44,038	49,763	0.19%	96	60	0.0036	0.0188	0.0011	0.0098	0.066
MDT	2,466	2,786	11.24%	313	60	0.0064	0.0220	0.0015	0.0165	0.156
HDT	2,654	2,999	90.45%	2,713	60	0.0037	0.0527	0.0033	0.0264	0.070
Total	162,001	183,061	-	4,780	60	-	-		-	-
Mix Avg Emission Factor						**0.00315**	**0.01941**	**0.00110**	**0.00785**	**0.04671**
Increase From 2016		1.13								
Vehicles/Direction		91,530		2,390						
Avg Vehicles/Hour/Direction		**3,814**		**100**						

Traffic Data Year = ***2016***

Caltrans Truck AADT		Total*	Truck by Axle			
	Total	Truck	2	3	4	5
I-280 B Saratoga,Sunnyvale/De Anza B	162,000	5,119	2,466	505	138	2,011
			48.17%	9.86%	2.70%	39.28%
Percent of Total Vehicles		3.16%	1.52%	0.31%	0.09%	1.24%

Traffic Increase per Year (%) = ***1.00%***

I-280 Traffic Data and PM2.5 & TOG Emission Factors - 25 mph

Analysis Year = ***2029***

Vehicle Type	2016 Caltrans Number Vehicles (veh/day)	2029 Number Vehicles (veh/day)	2029 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	112,843	127,512	1.30%	1,658	25	0.0028	0.0197	0.0020	0.0129	0.037
LDT	44,038	49,763	0.19%	96	25	0.0059	0.0197	0.0020	0.0184	0.066
MDT	2,466	2,786	11.24%	313	25	0.0137	0.0257	0.0052	0.0315	0.156
HDT	2,654	2,999	90.45%	2,713	25	0.0061	0.0549	0.0055	0.0663	0.070
Total	162,001	183,061	-	4,780	25	-	-	-	-	-
Mix Avg Emission Factor						**0.00546**	**0.02038**	**0.00207**	**0.01475**	**0.04671**
Increase From 2016		1.13								
Vehicles/Direction		91,530		2,390						
Avg Vehicles/Hour/Direction		**3,814**		**100**						

Traffic Data Year = ***2016***

Caltrans Truck AADT	Total	Total Truck	Truck by Axle: 2	3	4	5
I-280 B Saratoga,Sunnyvale/De Anza B	162,000	5,119	2,466	505	138	2,011
			48.17%	9.86%	2.70%	39.28%
Percent of Total Vehicles		3.16%	1.52%	0.31%	0.09%	1.24%

Traffic Increase per Year (%) = ***1.00%***

Vallco Specific Plan, Cupertino, 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) [$k_{PM2.5} = k_{PM10}$ x (0.0686/0.4572) = 1.0 x 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 2014, Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust (Revised and updated, April 2014)

Road Type	Silt Loading (g/m^2)	Average Weight (tons)	County	No. Days ppt > 0.01"	$PM_{2.5}$ Emission Factor (g/VMT)
Freeway	0.02	2.4	Santa Clara	64	0.00996

SFBAAB[a]

Road Type	Silt Loading (g/m^2)
Collector	0.032
Freeway	0.02
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

Vallco Specific Plan, Cupertino, CA - I-280 - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Residential Receptors (1.5 meter receptor heights)

Emissions Year	2029
Receptor Information	
Number of Receptors	261
Receptor Height =	1.5 meters above ground level
Receptor distances =	30 and 50 meter grids in plan area
Meteorological Conditions	
BAAQMD San Jose Airport Met Data	2006-2010
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Meteorological Data Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2006 - 2010	0.00292	0.3253	1.6542

Meteorological Data Years	PM2.5 Concentrations (µg/m^3)		
	Total PM2.5	Road Dust PM2.5	Vehicle PM2.5
2006 - 2010	1.0448	0.3527	0.69212

Vallco Specific Plan, Cupertino, CA - I-280 Maximum Cancer Risks
On-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				Cancer Risk (per million)			
					Annual TAC Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2029	0.25	-0.25 - 0*	10	0.0029	0.3253	1.6542	0.040	0.025	0.008	0.07
1	2029	1	1	10	0.0029	0.3253	1.6542	0.48	0.305	0.091	0.88
2	2030	1	2	10	0.0029	0.3253	1.6542	0.48	0.305	0.091	0.88
3	2031	1	3	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
4	2032	1	4	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
5	2033	1	5	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
6	2034	1	6	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
7	2035	1	7	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
8	2036	1	8	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
9	2037	1	9	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
10	2038	1	10	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
11	2039	1	11	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
12	2040	1	12	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
13	2041	1	13	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
14	2042	1	14	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
15	2043	1	15	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
16	2044	1	16	3	0.0029	0.3253	1.6542	0.08	0.048	0.014	0.14
17	2045	1	17	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
18	2046	1	18	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
19	2047	1	19	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
20	2048	1	20	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
21	2049	1	21	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
22	2050	1	22	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
23	2051	1	23	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
24	2052	1	24	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
25	2053	1	25	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
26	2054	1	26	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
27	2055	1	27	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
28	2056	1	28	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
29	2057	1	29	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
30	2058	1	30	1	0.0029	0.3253	1.6542	0.01	0.005	0.002	0.015
Total Increased Cancer Risk			**Total**					2.17	1.383	0.415	**4.0**

* Third trimester of pregnancy

Attachment 4: Stevens Creek Boulevard and North Wolfe Road Emissions and Risk Calculations

Stevens Creek Blvd Emissions and Risk Calculations

Vallco Specific Plan, Cupertino, CA
Stevens Creek Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2029

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	Diesel ADT	Average Speed (mph)
EB-SCreek	Eastbound Stevens Creek Blvd	E	3	912	36	11.0	3.4	512	Variable
WB-SCreek	Westbound Stevens Creek Blvd	W	3	912	36	11.0	3.4	512	Variable

2029 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - EB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.42%	12	0.0067	9	6.35%	33	0.0255	17	5.76%	30	0.0251
2	1.81%	9	0.0077	10	6.85%	35	0.0047	18	4.61%	24	0.0170
3	2.08%	11	0.0082	11	6.30%	32	0.0047	19	4.00%	20	0.0040
4	1.82%	9	0.0060	12	6.64%	34	0.0047	20	3.12%	16	0.0030
5	1.28%	7	0.0068	13	6.18%	32	0.0045	21	4.42%	23	0.0040
6	1.79%	9	0.0056	14	6.15%	32	0.0046	22	5.00%	26	0.0041
7	5.88%	30	0.0042	15	5.48%	28	0.0042	23	1.57%	8	0.0067
8	5.10%	26	0.0231	16	4.85%	25	0.0041	24	0.53%	3	0.0071
								Total		512	

2029 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - WB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.42%	12	0.0067	9	6.35%	33	0.0255	17	5.76%	30	0.0251
2	1.81%	9	0.0077	10	6.85%	35	0.0047	18	4.61%	24	0.0170
3	2.08%	11	0.0082	11	6.30%	32	0.0047	19	4.00%	20	0.0040
4	1.82%	9	0.0060	12	6.64%	34	0.0047	20	3.12%	16	0.0030
5	1.28%	7	0.0068	13	6.18%	32	0.0045	21	4.42%	23	0.0040
6	1.79%	9	0.0056	14	6.15%	32	0.0046	22	5.00%	26	0.0041
7	5.88%	30	0.0042	15	5.48%	28	0.0042	23	1.57%	8	0.0067
8	5.10%	26	0.0231	16	4.85%	25	0.0041	24	0.53%	3	0.0071
								Total		512	

Vallco Specific Plan, Cupertino, CA
Stevens Creek Blvd
PM2.5 & TOG Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB-SCreek	Eastbound Stevens Creek Blvd	E	3	912	36	11.0	1.3	22,645	Variable
WB-SCreek	Westbound Stevens Creek Blvd	W	3	912	36	11.0	1.3	22,645	Variable

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	247	0.0206	9	7.08%	1603	0.0216	17	7.40%	1675	0.0213
2	0.36%	82	0.0213	10	4.27%	967	0.0201	18	8.29%	1878	0.0210
3	0.30%	69	0.0217	11	4.60%	1042	0.0198	19	5.80%	1313	0.0193
4	0.19%	43	0.0272	12	5.84%	1323	0.0198	20	4.37%	988	0.0193
5	0.45%	103	0.0209	13	6.17%	1397	0.0196	21	3.28%	744	0.0195
6	0.82%	186	0.0215	14	6.03%	1366	0.0196	22	3.31%	749	0.0197
7	3.77%	853	0.0199	15	7.08%	1603	0.0195	23	2.47%	560	0.0195
8	7.90%	1789	0.0210	16	7.23%	1636	0.0194	24	1.89%	429	0.0193
								Total		22,645	

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	247	0.0206	9	7.08%	1603	0.0216	17	7.40%	1675	0.0213
2	0.36%	82	0.0213	10	4.27%	967	0.0201	18	8.29%	1878	0.0210
3	0.30%	69	0.0217	11	4.60%	1042	0.0198	19	5.80%	1313	0.0193
4	0.19%	43	0.0272	12	5.84%	1323	0.0198	20	4.37%	988	0.0193
5	0.45%	103	0.0209	13	6.17%	1397	0.0196	21	3.28%	744	0.0195
6	0.82%	186	0.0215	14	6.03%	1366	0.0196	22	3.31%	749	0.0197
7	3.77%	853	0.0199	15	7.08%	1603	0.0195	23	2.47%	560	0.0195
8	7.90%	1789	0.0210	16	7.23%	1636	0.0194	24	1.89%	429	0.0193
								Total		22,645	

Vallco Specific Plan, Cupertino, CA
Stevens Creek Blvd
Entrained PM2.5 Road Dust Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB-SCreek	Eastbound Stevens Creek Blvd	E	3	912	36	11.0	1.3	22,645	Variable
WB-SCreek	Westbound Stevens Creek Blvd	W	3	912	36	11.0	1.3	22,645	Variable

2029 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - EB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	247	0.0153	9	7.08%	1603	0.0153	17	7.40%	1675	0.0153
2	0.36%	82	0.0153	10	4.27%	967	0.0153	18	8.29%	1878	0.0153
3	0.30%	69	0.0153	11	4.60%	1042	0.0153	19	5.80%	1313	0.0153
4	0.19%	43	0.0153	12	5.84%	1323	0.0153	20	4.37%	988	0.0153
5	0.45%	103	0.0153	13	6.17%	1397	0.0153	21	3.28%	744	0.0153
6	0.82%	186	0.0153	14	6.03%	1366	0.0153	22	3.31%	749	0.0153
7	3.77%	853	0.0153	15	7.08%	1603	0.0153	23	2.47%	560	0.0153
8	7.90%	1789	0.0153	16	7.23%	1636	0.0153	24	1.89%	429	0.0153
								Total		22,645	

2029 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - WB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	247	0.0153	9	7.08%	1603	0.0153	17	7.40%	1675	0.0153
2	0.36%	82	0.0153	10	4.27%	967	0.0153	18	8.29%	1878	0.0153
3	0.30%	69	0.0153	11	4.60%	1042	0.0153	19	5.80%	1313	0.0153
4	0.19%	43	0.0153	12	5.84%	1323	0.0153	20	4.37%	988	0.0153
5	0.45%	103	0.0153	13	6.17%	1397	0.0153	21	3.28%	744	0.0153
6	0.82%	186	0.0153	14	6.03%	1366	0.0153	22	3.31%	749	0.0153
7	3.77%	853	0.0153	15	7.08%	1603	0.0153	23	2.47%	560	0.0153
8	7.90%	1789	0.0153	16	7.23%	1636	0.0153	24	1.89%	429	0.0153
								Total		22,645	

Vallco Specific Plan, Cupertino, CA
Stevens Creek Blvd Traffic Data and PM2.5 & TOG Emission Factors - 35 mph

Analysis Year = ***2029***

Vehicle Type	2029 Caltrans Number Vehicles (veh/day)	2029 Number Vehicles (veh/day)	2029 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	31,433	31,433	1.30%	409	35	0.0022	0.0190	0.0013	0.0083	0.037
LDT	12,267	12,267	0.19%	24	35	0.0047	0.0190	0.0013	0.0119	0.066
MDT	1,060	1,060	11.24%	119	35	0.0095	0.0228	0.0023	0.0202	0.156
HDT	530	530	89.27%	473	35	0.0056	0.0613	0.0052	0.0603	0.068
Total	45,290	45,290	-	1,025	35	-	-		-	-
Mix Avg Emission Factor						**0.00468**	**0.01960**	**0.00134**	**0.00958**	**0.04752**
Increase From 2029		1.00								
Vehicles/Direction		22,645		512						
Avg Vehicles/Hour/Direction		**944**		**21**						

Traffic Data Year = ***2029***

Project Traffic Report	Total	Total* Truck	Truck by Axle: 2	3	4	5
Stevens Creek Blvd	45,290	1,590	1,060	177	177	177
			66.67%	11.11%	11.11%	11.11%
Percent of Total Vehicles		3.51%	2.34%	0.39%	0.39%	0.39%

* Truck percentage based on BAAQMD for trucks in Santa Clara Co. on non-state highways
2/3 of trucks assumed to be MDT and 1/3 assumed to be HDT
Traffic Increase per Year (%) = *1.00%*

Vallco Specific Plan, Cupertino, CA
Stevens Creek Blvd Traffic Data and PM2.5 & TOG Emission Factors - 20 mph

Analysis Year = ***2029***

Vehicle Type	2029 Caltrans Number Vehicles (veh/day)	2029 Number Vehicles (veh/day)	2029 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	31,433	31,433	1.30%	409	20	0.0033	0.0204	0.0026	0.0174	0.037
LDT	12,267	12,267	0.19%	24	20	0.0070	0.0204	0.0027	0.0248	0.066
MDT	1,060	1,060	11.24%	119	20	0.0168	0.0283	0.0077	0.0427	0.156
HDT	530	530	89.27%	473	20	0.0473	0.0938	0.0377	0.0766	0.068
Total	45,290	45,290	-	1,025	20	-	-		-	-
Mix Avg Emission Factor						**0.02525**	**0.02145**	**0.00318**	**0.02003**	**0.04752**
Increase From 2029		1.00								
Vehicles/Direction		22,645		512						
Avg Vehicles/Hour/Direction		**944**		**21**						

Traffic Data Year = ***2029***

Project Traffic Report	Total	Total* Truck	Truck by Axle: 2	3	4	5
Stevens Creek Blvd	45,290	1,590	1,060	177	177	177
			66.67%	11.11%	11.11%	11.11%
Percent of Total Vehicles		3.51%	2.34%	0.39%	0.39%	0.39%

* Truck percentage based on BAAQMD for trucks in Santa Clara Co. on non-state highways
2/3 of trucks assumed to be MDT and 1/3 assumed to be HDT
Traffic Increase per Year (%) = *1.00%*

Vallco Specific Plan, Cupertino, CA
Stevens Creek Blvd 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 2014, Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust (Revised and updated, April 2014)

Road Type	Silt Loading (g/m^2)	Average Weight (tons)	County	No. Days ppt > 0.01"	$PM_{2.5}$ Emission Factor (g/VMT)
Major	0.032	2.4	Santa Clara	64	0.01528

SFBAAB[a]

Road Type	Silt Loading (g/m^2)
Collector	0.032
Freeway	0.02
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

Vallco Specific Plan, Cupertino, CA - Stevens Creek Blvd - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Residential Receptors (1.5 meter receptor heights)

Emissions Year 2029

Receptor Information

Number of Receptors 178
Receptor Height = 1.5 meters above ground level
Receptor distances = 30 meter grid in plan area

Meteorological Conditions

BAAQMD San Jose Airport Met Data 2006-2010
Land Use Classification urban
Wind speed = variable
Wind direction = variable

MEI Maximum Concentrations

Meteorological Data Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2006 - 2010	0.00216	0.1300	0.5547

Meteorological Data Years	PM2.5 Concentrations (µg/m^3)		
	Total PM2.5	Road Dust PM2.5	Vehicle PM2.5
2006 - 2010	0.4071	0.1750	0.2321

Vallco Specific Plan, Cupertino, CA -Stevens Creek Blvd Maximum Cancer Risks
On-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				Cancer Risk (per million)			
					Annual TAC Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2029	0.25	-0.25 - 0*	10	0.0022	0.1300	0.5547	0.029	0.010	0.003	0.04
1	2029	1	1	10	0.0022	0.1300	0.5547	0.35	0.122	0.031	0.51
2	2030	1	2	10	0.0022	0.1300	0.5547	0.35	0.122	0.031	0.51
3	2031	1	3	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
4	2032	1	4	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
5	2033	1	5	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
6	2034	1	6	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
7	2035	1	7	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
8	2036	1	8	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
9	2037	1	9	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
10	2038	1	10	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
11	2039	1	11	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
12	2040	1	12	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
13	2041	1	13	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
14	2042	1	14	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
15	2043	1	15	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
16	2044	1	16	3	0.0022	0.1300	0.5547	0.06	0.019	0.005	0.08
17	2045	1	17	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
18	2046	1	18	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
19	2047	1	19	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
20	2048	1	20	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
21	2049	1	21	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
22	2050	1	22	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
23	2051	1	23	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
24	2052	1	24	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
25	2053	1	25	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
26	2054	1	26	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
27	2055	1	27	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
28	2056	1	28	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
29	2057	1	29	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
30	2058	1	30	1	0.0022	0.1300	0.5547	0.01	0.002	0.001	0.009
Total Increased Cancer Risk			**Total**					1.61	0.552	0.139	**2.3**

* Third trimester of pregnancy

North Wolfe Road Emissions and Risk Calculations

Vallco Specific Plan, Cupertino, CA
Wolfe Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2029

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	Diesel ADT	Average Speed (mph)
NB-Wolfe	Northbound Wolfe Road	N	3	1462	36	11.0	3.4	462	Variable
SB-Wolfe	Southbound Wolfe Road	S	3	1463	36	11.0	3.4	462	Variable

2029 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - NB-Wolfe

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.42%	11	0.0067	9	6.35%	29	0.0255	17	5.76%	27	0.0251
2	1.81%	8	0.0077	10	6.85%	32	0.0047	18	4.61%	21	0.0170
3	2.08%	10	0.0082	11	6.30%	29	0.0047	19	4.00%	18	0.0040
4	1.82%	8	0.0060	12	6.64%	31	0.0047	20	3.12%	14	0.0030
5	1.28%	6	0.0068	13	6.18%	29	0.0045	21	4.42%	20	0.0040
6	1.79%	8	0.0056	14	6.15%	28	0.0046	22	5.00%	23	0.0041
7	5.88%	27	0.0042	15	5.48%	25	0.0042	23	1.57%	7	0.0067
8	5.10%	24	0.0231	16	4.85%	22	0.0041	24	0.53%	2	0.0071
								Total		462	

2029 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - SB-Wolfe

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.42%	11	0.0067	9	6.35%	29	0.0255	17	5.76%	27	0.0251
2	1.81%	8	0.0077	10	6.85%	32	0.0047	18	4.61%	21	0.0170
3	2.08%	10	0.0082	11	6.30%	29	0.0047	19	4.00%	18	0.0040
4	1.82%	8	0.0060	12	6.64%	31	0.0047	20	3.12%	14	0.0030
5	1.28%	6	0.0068	13	6.18%	29	0.0045	21	4.42%	20	0.0040
6	1.79%	8	0.0056	14	6.15%	28	0.0046	22	5.00%	23	0.0041
7	5.88%	27	0.0042	15	5.48%	25	0.0042	23	1.57%	7	0.0067
8	5.10%	24	0.0231	16	4.85%	22	0.0041	24	0.53%	2	0.0071
								Total		462	

Vallco Specific Plan, Cupertino, CA
Wolfe Road
PM2.5 & TOG Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
NB-Wolfe	Northbound Wolfe Road	N	3	1462	36	11.0	1.3	20,405	Variable
SB-Wolfe	Southbound Wolfe Road	S	3	1463	36	11.0	1.3	20,405	Variable

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - NB-Wolfe

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	223	0.0206	9	7.08%	1444	0.0216	17	7.40%	1509	0.0213
2	0.36%	74	0.0213	10	4.27%	872	0.0201	18	8.29%	1692	0.0210
3	0.30%	62	0.0217	11	4.60%	939	0.0198	19	5.80%	1183	0.0193
4	0.19%	38	0.0272	12	5.84%	1192	0.0198	20	4.37%	891	0.0193
5	0.45%	92	0.0209	13	6.17%	1259	0.0196	21	3.28%	670	0.0195
6	0.82%	168	0.0215	14	6.03%	1231	0.0196	22	3.31%	675	0.0197
7	3.77%	768	0.0199	15	7.08%	1444	0.0195	23	2.47%	505	0.0195
8	7.90%	1612	0.0210	16	7.23%	1474	0.0194	24	1.89%	386	0.0193
								Total		20,405	

2029 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - SB-Wolfe

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	223	0.0206	9	7.08%	1444	0.0216	17	7.40%	1509	0.0213
2	0.36%	74	0.0213	10	4.27%	872	0.0201	18	8.29%	1692	0.0210
3	0.30%	62	0.0217	11	4.60%	939	0.0198	19	5.80%	1183	0.0193
4	0.19%	38	0.0272	12	5.84%	1192	0.0198	20	4.37%	891	0.0193
5	0.45%	92	0.0209	13	6.17%	1259	0.0196	21	3.28%	670	0.0195
6	0.82%	168	0.0215	14	6.03%	1231	0.0196	22	3.31%	675	0.0197
7	3.77%	768	0.0199	15	7.08%	1444	0.0195	23	2.47%	505	0.0195
8	7.90%	1612	0.0210	16	7.23%	1474	0.0194	24	1.89%	386	0.0193
								Total		20,405	

Vallco Specific Plan, Cupertino, CA
Wolfe Road
Entrained PM2.5 Road Dust Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2029

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
NB-Wolfe	Northbound Wolfe Road	N	3	1462	36	11.0	1.3	20,405	Variable
SB-Wolfe	Southbound Wolfe Road	S	3	1463	36	11.0	1.3	20,405	Variable

2029 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - NB-Wolfe

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	223	0.0153	9	7.08%	1444	0.0153	17	7.40%	1509	0.0153
2	0.36%	74	0.0153	10	4.27%	872	0.0153	18	8.29%	1692	0.0153
3	0.30%	62	0.0153	11	4.60%	939	0.0153	19	5.80%	1183	0.0153
4	0.19%	38	0.0153	12	5.84%	1192	0.0153	20	4.37%	891	0.0153
5	0.45%	92	0.0153	13	6.17%	1259	0.0153	21	3.28%	670	0.0153
6	0.82%	168	0.0153	14	6.03%	1231	0.0153	22	3.31%	675	0.0153
7	3.77%	768	0.0153	15	7.08%	1444	0.0153	23	2.47%	505	0.0153
8	7.90%	1612	0.0153	16	7.23%	1474	0.0153	24	1.89%	386	0.0153
								Total		20,405	

2029 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - SB-Wolfe

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	223	0.0153	9	7.08%	1444	0.0153	17	7.40%	1509	0.0153
2	0.36%	74	0.0153	10	4.27%	872	0.0153	18	8.29%	1692	0.0153
3	0.30%	62	0.0153	11	4.60%	939	0.0153	19	5.80%	1183	0.0153
4	0.19%	38	0.0153	12	5.84%	1192	0.0153	20	4.37%	891	0.0153
5	0.45%	92	0.0153	13	6.17%	1259	0.0153	21	3.28%	670	0.0153
6	0.82%	168	0.0153	14	6.03%	1231	0.0153	22	3.31%	675	0.0153
7	3.77%	768	0.0153	15	7.08%	1444	0.0153	23	2.47%	505	0.0153
8	7.90%	1612	0.0153	16	7.23%	1474	0.0153	24	1.89%	386	0.0153
								Total		20,405	

Vallco Specific Plan, Cupertino, CA
Wolfe Road Traffic Data and PM2.5 & TOG Emission Factors - 35 mph

Analysis Year = ***2029***

Vehicle Type	2029 Caltrans Number Vehicles (veh/day)	2029 Number Vehicles (veh/day)	2029 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	28,324	28,324	1.30%	368	35	0.0022	0.0190	0.0013	0.0083	0.037
LDT	11,054	11,054	0.19%	21	35	0.0047	0.0190	0.0013	0.0119	0.066
MDT	955	955	11.24%	107	35	0.0095	0.0228	0.0023	0.0202	0.156
HDT	477	477	89.27%	426	35	0.0056	0.0613	0.0052	0.0603	0.068
Total	40,810	40,810	-	923	35	-	-		-	-
Mix Avg Emission Factor						**0.00468**	**0.01960**	**0.00134**	**0.00958**	**0.04752**
Increase From 2029		1.00								
Vehicles/Direction		20,405		462						
Avg Vehicles/Hour/Direction		**850**		**19**						

Traffic Data Year = ***2029***

Project traffic report data	Total	Total* Truck	Truck by Axle: 2	3	4	5
Wolfe Road	40,810	1,432	955	159	159	159
			66.67%	11.11%	11.11%	11.11%
Percent of Total Vehicles		3.51%	2.34%	0.39%	0.39%	0.39%

* Truck percentage based on BAAQMD for trucks in Santa Clara Co. on non-state highways
2/3 of trucks assumed to be MDT and 1/3 assumed to be HDT
Traffic Increase per Year (%) = *1.00%*

Vallco Specific Plan, Cupertino, CA
Wolfe Road Traffic Data and PM2.5 & TOG Emission Factors - 20 mph

Analysis Year = ***2029***

Vehicle Type	2029 Caltrans Number Vehicles (veh/day)	2029 Number Vehicles (veh/day)	2029 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	28,324	28,324	1.30%	368	20	0.0033	0.0204	0.0026	0.0174	0.037
LDT	11,054	11,054	0.19%	21	20	0.0070	0.0204	0.0027	0.0248	0.066
MDT	955	955	11.24%	107	20	0.0168	0.0283	0.0077	0.0427	0.156
HDT	477	477	89.27%	426	20	0.0473	0.0938	0.0377	0.0766	0.068
Total	40,810	40,810	-	923	20	-	-		-	-
Mix Avg Emission Factor						**0.02525**	**0.02145**	**0.00318**	**0.02003**	**0.04752**
Increase From 2029		1.00								
Vehicles/Direction		20,405		462						
Avg Vehicles/Hour/Direction		**850**		**19**						

Traffic Data Year = ***2029***

Project traffic report data	Total	Total* Truck	Truck by Axle: 2	3	4	5
Wolfe Road	40,810	1,432	955	159	159	159
			66.67%	11.11%	11.11%	11.11%
Percent of Total Vehicles		3.51%	2.34%	0.39%	0.39%	0.39%

* Truck percentage based on BAAQMD for trucks in Santa Clara Co. on non-state highways
2/3 of trucks assumed to be MDT and 1/3 assumed to be HDT
Traffic Increase per Year (%) = *1.00%*

Vallco Specific Plan, Cupertino, CA
Wolfe Road 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 2014, Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust (Revised and updated, April 2014)

Road Type	Silt Loading (g/m^2)	Average Weight (tons)	County	No. Days ppt > 0.01"	$PM_{2.5}$ Emission Factor (g/VMT)
Major	0.032	2.4	Santa Clara	64	0.01528

SFBAAB[a]

Road Type	Silt Loading (g/m^2)
Collector	0.032
Freeway	0.02
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

Vallco Specific Plan, Cupertino, CA -North Wolfe Road - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Residential Receptors (1.5 meter receptor heights)

Emissions Year	2029
Receptor Information	
Number of Receptors	151
Receptor Height =	1.5 meters above ground level
Receptor distances =	30 meter grid in plan area
Meteorological Conditions	
BAAQMD San Jose Airport Met Data	2006-2010
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Meteorological Data Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2006 - 2010	0.00293	0.2173	0.9276

Meteorological Data Years	PM2.5 Concentrations (µg/m^3)		
	Total PM2.5	Road Dust PM2.5	Vehicle PM2.5
2006 - 2010	0.6835	0.2954	0.3881

Vallco Specific Plan, Cupertino, CA -North Wolfe Road Maximum Cancer Risks
On-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				Cancer Risk (per million)			
					Annual TAC Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2029	0.25	-0.25 - 0*	10	0.0029	0.2173	0.9276	0.040	0.017	0.004	0.06
1	2029	1	1	10	0.0029	0.2173	0.9276	0.48	0.204	0.051	0.74
2	2030	1	2	10	0.0029	0.2173	0.9276	0.48	0.204	0.051	0.74
3	2031	1	3	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
4	2032	1	4	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
5	2033	1	5	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
6	2034	1	6	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
7	2035	1	7	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
8	2036	1	8	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
9	2037	1	9	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
10	2038	1	10	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
11	2039	1	11	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
12	2040	1	12	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
13	2041	1	13	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
14	2042	1	14	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
15	2043	1	15	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
16	2044	1	16	3	0.0029	0.2173	0.9276	0.08	0.032	0.008	0.12
17	2045	1	17	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
18	2046	1	18	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
19	2047	1	19	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
20	2048	1	20	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
21	2049	1	21	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
22	2050	1	22	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
23	2051	1	23	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
24	2052	1	24	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
25	2053	1	25	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
26	2054	1	26	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
27	2055	1	27	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
28	2056	1	28	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
29	2057	1	29	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
30	2058	1	30	1	0.0029	0.2173	0.9276	0.01	0.004	0.001	0.013
Total Increased Cancer Risk			**Total**					2.18	0.924	0.232	**3.3**

* Third trimester of pregnancy

Attachment 5: Construction Emissions and Health Risk Modeling

Vallco Specific Plan, Cupertino, CA

DPM Emissions and Modeling Emission Rates - Without Mitigation
Proposed Project

Construction Year	Activity	Modeled DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2019	Construction	0.2787	DPM_19	557.4	0.16968	2.14E-02	251,770	8.49E-08
2020	Construction	0.2371	DPM_20	474.2	0.14435	1.82E-02	251,770	7.22E-08
2021	Construction	0.1413	DPM_21	282.6	0.08603	1.08E-02	251,770	4.31E-08
2022	Construction	0.1198	DPM_22	239.6	0.07294	9.19E-03	251,770	3.65E-08
2023	Construction	0.1004	DPM_23	200.8	0.06113	7.70E-03	251,770	3.06E-08
2024	Construction	0.0896	DPM_24	179.2	0.05455	6.87E-03	251,770	2.73E-08
2025	Construction	0.0779	DPM_25	155.8	0.04743	5.98E-03	251,770	2.37E-08
2026	Construction	0.0776	DPM_26	155.2	0.04725	5.95E-03	251,770	2.36E-08
2027	Construction	0.0765	DPM_27	153.0	0.04658	5.87E-03	251,770	2.33E-08
2028	Construction	0.0291	DPM_28	58.2	0.01772	2.23E-03	251,770	8.87E-09
Total		***1.228***		***2456.0***				

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Emissions for Modeling - Without Mitigation
Proposed Project

Construction Year	Activity	Modeled Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2019	Construction	FUG_19	0.7041	1408.2	0.42868	5.40E-02	251,770	2.15E-07
2020	Construction	FUG_20	0.3662	732.4	0.22295	2.81E-02	251,770	1.12E-07
2021	Construction	FUG_21	0.1614	322.8	0.09826	1.24E-02	251,770	4.92E-08
2022	Construction	FUG_22	0.1608	321.6	0.09790	1.23E-02	251,770	4.90E-08
2023	Construction	FUG_23	0.1608	321.6	0.09790	1.23E-02	251,770	4.90E-08
2024	Construction	FUG_24	0.1620	324.0	0.09863	1.24E-02	251,770	4.94E-08
2025	Construction	FUG_25	0.1614	322.8	0.09826	1.24E-02	251,770	4.92E-08
2026	Construction	FUG_26	0.1614	322.8	0.09826	1.24E-02	251,770	4.92E-08
2027	Construction	FUG_27	0.1559	311.8	0.09492	1.20E-02	251,770	4.75E-08
2028	Construction	FUG_28	0.0108	21.6	0.00658	8.28E-04	251,770	3.29E-09
Total			***2.205***	***4409.6***				

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

DPM Emissions and Modeling Emission Rates - With Mitigation
Proposed Project

Construction Year	Activity	Modeled DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2019	Construction	0.0148	DPM_19	29.6	0.00901	1.14E-03	251,770	4.51E-09
2020	Construction	0.0348	DPM_20	69.6	0.02119	2.67E-03	251,770	1.06E-08
2021	Construction	0.0273	DPM_21	54.6	0.01662	2.09E-03	251,770	8.32E-09
2022	Construction	0.0256	DPM_22	51.2	0.01559	1.96E-03	251,770	7.80E-09
2023	Construction	0.0205	DPM_23	41.0	0.01248	1.57E-03	251,770	6.25E-09
2024	Construction	0.0204	DPM_24	40.8	0.01242	1.56E-03	251,770	6.22E-09
2025	Construction	0.0201	DPM_25	40.2	0.01224	1.54E-03	251,770	6.12E-09
2026	Construction	0.0198	DPM_26	39.6	0.01205	1.52E-03	251,770	6.03E-09
2027	Construction	0.0189	DPM_27	37.8	0.01151	1.45E-03	251,770	5.76E-09
2028	Construction	0.0030	DPM_28	5.9	0.00181	2.28E-04	251,770	9.05E-10
Total		***0.21***		***410.3***				

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Emissions for Modeling - With Mitigation
Proposed Project

Construction Year	Activity	Modeled Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2019	Construction	FUG_19	0.1772	354.4	0.10788	1.36E-02	251,770	5.40E-08
2020	Construction	FUG_20	0.1672	334.4	0.10180	1.28E-02	251,770	5.09E-08
2021	Construction	FUG_21	0.1614	322.8	0.09826	1.24E-02	251,770	4.92E-08
2022	Construction	FUG_22	0.1608	321.6	0.09790	1.23E-02	251,770	4.90E-08
2023	Construction	FUG_23	0.1608	321.6	0.09790	1.23E-02	251,770	4.90E-08
2024	Construction	FUG_24	0.1620	324.0	0.09863	1.24E-02	251,770	4.94E-08
2025	Construction	FUG_25	0.1614	322.8	0.09826	1.24E-02	251,770	4.92E-08
2026	Construction	FUG_26	0.1614	322.8	0.09826	1.24E-02	251,770	4.92E-08
2027	Construction	FUG_27	0.1559	311.8	0.09492	1.20E-02	251,770	4.75E-08
2028	Construction	FUG_28	0.0108	21.6	0.00658	8.28E-04	251,770	3.29E-09
Total			***1.48***	***2957.8***				

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Vallco Specific Plan, Cupertino, CA Construction
Health impacts Summary - Unmitigated Emissions Scenarios

Proposed Project
Maximum Impacts at Construction MEI Location - Unmitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2019	0.0685	0.1830	12.18	0.20	0.014	0.25
2020	0.0582	0.0953	9.57	0.17	0.012	0.15
2021	0.0348	0.0419	0.99	0.10	0.007	0.08
2022	0.0294	0.0417	0.84	0.08	0.006	0.07
2023	0.0247	0.0417	0.70	0.07	0.005	0.07
2024	0.0220	0.0421	0.63	0.06	0.004	0.06
2025	0.0191	0.0419	0.55	0.05	0.004	0.06
2026	0.0190	0.0419	0.54	0.05	0.004	0.06
2027	0.0188	0.0404	0.54	0.05	0.004	0.06
2028	0.0072	0.0028	0.20	0.02	0.001	0.01
Total			**26.7**	**0.9**		
Maximum	0.0685	0.1830	-	-	**0.01**	**0.25**

Vallco Specific Plan, Cupertino, CA Construction
Health impacts Summary - Mitigated Emissions Scenarios

Proposed Project
Maximum Impacts at Construction MEI Location - Mitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2019	0.0036	0.0460	0.65	0.01	0.001	0.050
2020	0.0086	0.0433	1.40	0.02	0.002	0.052
2021	0.0067	0.0419	0.19	0.02	0.001	0.049
2022	0.0063	0.0417	0.18	0.02	0.001	0.048
2023	0.0050	0.0417	0.14	0.01	0.001	0.047
2024	0.0050	0.0421	0.14	0.01	0.001	0.047
2025	0.0049	0.0419	0.14	0.01	0.001	0.047
2026	0.0049	0.0419	0.14	0.01	0.001	0.047
2027	0.0047	0.0404	0.13	0.01	0.001	0.045
2028	0.0007	0.0028	0.02	0.00	0.000	0.004
Total			**3.1**	**0.1**		
Maximum	0.0086	0.0460	-	-	**0.00**	**0.05**

Maximum Residential Alternative

Maximum Impacts at Construction MEI Location - Unmitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM (µg/m^3)	Maximum Concentrations: Fugitive PM2.5 (µg/m^3)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m^3)
2019	0.0685	0.1830	12.18	0.20	0.014	0.25
2020	0.0585	0.0932	9.61	0.17	0.012	0.15
2021	0.0352	0.0379	1.00	0.10	0.007	0.07
2022	0.0298	0.0378	0.85	0.09	0.006	0.07
2023	0.0250	0.0378	0.71	0.07	0.005	0.06
2024	0.0224	0.0381	0.64	0.06	0.004	0.06
2025	0.0195	0.0379	0.56	0.06	0.004	0.06
2026	0.0194	0.0379	0.55	0.06	0.004	0.06
2027	0.0191	0.0366	0.54	0.05	0.004	0.06
2028	0.0072	0.0023	0.20	0.02	0.001	0.01
Total			**26.8**	**0.9**		
Maximum	0.0685	0.1830	-	-	**0.01**	**0.25**

Maximum Residential Alternative

Maximum Impacts at Construction MEI Location - Mitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM (µg/m^3)	Maximum Concentrations: Fugitive PM2.5 (µg/m^3)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m^3)
2019	0.0036	0.0460	0.65	0.01	0.001	0.050
2020	0.0088	0.0471	1.44	0.03	0.002	0.056
2021	0.0071	0.0492	0.20	0.02	0.001	0.056
2022	0.0067	0.0491	0.19	0.02	0.001	0.056
2023	0.0054	0.0491	0.15	0.02	0.001	0.054
2024	0.0054	0.0494	0.15	0.02	0.001	0.055
2025	0.0053	0.0492	0.15	0.02	0.001	0.055
2026	0.0052	0.0492	0.15	0.01	0.001	0.054
2027	0.0050	0.0475	0.14	0.01	0.001	0.053
2028	0.0008	0.0035	0.02	0.00	0.000	0.004
Total			**3.3**	**0.2**		
Maximum	0.0088	0.0494	-	-	**0.002**	**0.06**

Vallco Specific Plan, Cupertino, CA Construction
Proposed Project
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
Impacts at Off-Site Receptors-5.8 meters

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

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

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

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

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information					
				DPM Conc (ug/m3)	Age	Infant/Child Cancer		Modeled DPM Conc (ug/m3)	Age	Adult Cancer		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2019	0.0685	10	0.93	2019	0.0685	-	-		
1	1	0 - 1	2019	0.0685	10	11.25	2019	0.0685	1	0.20	0.183	0.251
2	1	1 - 2	2020	0.0582	10	9.57	2020	0.0582	1	0.17	0.0953	0.154
3	1	2 - 3	2021	0.0348	3	0.99	2021	0.0348	1	0.10	0.0419	0.077
4	1	3 - 4	2022	0.0294	3	0.84	2022	0.0294	1	0.08	0.0417	0.071
5	1	4 - 5	2023	0.0247	3	0.70	2023	0.0247	1	0.07	0.0417	0.066
6	1	5 - 6	2024	0.0220	3	0.63	2024	0.0220	1	0.06	0.0421	0.064
7	1	6 - 7	2025	0.0191	3	0.55	2025	0.0191	1	0.05	0.0419	0.061
8	1	7 - 8	2026	0.0190	3	0.54	2026	0.0190	1	0.05	0.0419	0.061
9	1	8 - 9	2027	0.0188	3	0.54	2027	0.0188	1	0.05	0.0404	0.059
10	1	9 - 10	2028	0.0072	3	0.20	2028	0.0072	1	0.02	0.0028	0.010
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**26.7**				**0.9**		

* Third trimester of pregnancy

Vallco Specific Plan, Cupertino, CA Construction
Proposed Project
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
Impacts at Off-Site Receptors-5.8 meters

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

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

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

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

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information					
							Modeled					
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2019	0.0036	10	0.05	2019	0.0036	-	-		
1	1	0 - 1	2019	0.0036	10	0.60	2019	0.0036	1	0.01	0.046	0.050
2	1	1 - 2	2020	0.0086	10	1.40	2020	0.0086	1	0.02	0.0433	0.052
3	1	2 - 3	2021	0.0067	3	0.19	2021	0.0067	1	0.02	0.0419	0.049
4	1	3 - 4	2022	0.0063	3	0.18	2022	0.0063	1	0.02	0.0417	0.048
5	1	4 - 5	2023	0.0050	3	0.14	2023	0.0050	1	0.01	0.0417	0.047
6	1	5 - 6	2024	0.0050	3	0.14	2024	0.0050	1	0.01	0.0421	0.047
7	1	6 - 7	2025	0.0049	3	0.14	2025	0.0049	1	0.01	0.0419	0.047
8	1	7 - 8	2026	0.0049	3	0.14	2026	0.0049	1	0.01	0.0419	0.047
9	1	8 - 9	2027	0.0047	3	0.13	2027	0.0047	1	0.01	0.0404	0.045
10	1	9 - 10	2028	0.0007	3	0.02	2028	0.0007	1	0.00	0.0028	0.004
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**3.1**				**0.1**		

* Third trimester of pregnancy