APPENDIX A

AIR QUALITY AND GREENHOUSE GAS BACKGROUND AND MODELING DATA

1. Air Quality

Ambient air quality standards (AAQS) have been adopted at State and federal levels for criteria air pollutants. In addition, both the State and federal government regulate the release of toxic air contaminants (TACs). The City of San Francisco is in the San Francisco Bay Area Air Basin (SFBAAB) and is subject to the rules and regulations imposed by the Bay Area Air Quality Management District (BAAQMD), as well as the California AAQS adopted by the California Air Resources Board (CARB) and national AAQS adopted by the United States Environmental Protection Agency (EPA). Federal, State, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below. The discussion also identifies the natural factors in the air basin that affect air pollution.

1.1 REGULATORY FRAMEWORK

1.1.1 Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

Criteria air pollutants are the air pollutants for which AAQS have been developed that are regulated under the CAA. The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 1. These pollutants are ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). 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 populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4]	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)[5]	24 hours	25 µg/m^3	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: California Air Resources Board, 2016, May 4. Ambient Air Quality Standards. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

4 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

5 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

1.1.2 Air Pollutants of Concern

A substance in the air that can cause harm to humans and the environment is known as an air pollutant. Pollutants can be in the form of solid particles, liquid droplets, or gases. In addition, they may be natural or man-made.

1.1.2.1 CRITERIA AIR POLLUTANTS

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law. Air pollutants are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, nitrogen dioxide (NO_2), PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that AAQS have been established for them. ROG and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little or no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO in the air basin. Emissions are highest during cold starts, hard acceleration, stop-and-go driving, and when a vehicle is moving at low speeds. New findings indicate that CO emissions per mile are lowest at about 45 miles per hour (mph) for the average light-duty motor vehicle and begin to increase again at higher speeds. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.[1] The air basin is designated under the California and National AAQS as being in attainment of CO criteria levels.[2]

- **Reactive Organic Gases (ROGs)** are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O_3. There are no AAQS established for ROGs. However, because they contribute to the formation of O_3, BAAQMD has established a significance threshold for this pollutant.

- **Nitrogen Oxides (NO_x)** are a by-product of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major components of NO_x are nitric oxide (NO) and NO_2. The principal component of NO_x produced by combustion is NO, but NO reacts with oxygen to form

[1] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011), Appendix C: Sample Air Quality Setting, in California Environmental Quality Act Air Quality Guidelines.

[2] California Air Resources Board, 2015, December. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 is an acute irritant and at equal concentrations more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure.[3] The air basin is designated an attainment area for NO_2 under the National AAQS and California AAQS.[4]

- **Sulfur Dioxide (SO_2)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When SO_2 forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue.[5] The air basin is designated an attainment area for SO_2 under the California and National AAQS.[6]

- **Suspended Particulate Matter (PM_{10} and $PM_{2.5}$)** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004-inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch).

  Some particulate matter, such as pollen, occurs naturally. Most particulate matter in the air basin is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. An EPA scientific review concluded that $PM_{2.5}$ penetrates even more deeply into the lungs, and this is more likely to contribute to health effects—at concentrations well below current PM_{10} standards. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, increased respiratory symptoms (e.g. irritation of the airways, coughing, or difficulty breathing). Motor vehicles

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[3] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). Appendix C: Sample Air Quality Setting, in California Environmental Quality Act Air Quality Guidelines.

[4] California Air Resources Board, 2015, December. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

[5] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). Appendix C: Sample Air Quality Setting, in California Environmental Quality Act Air Quality Guidelines.

[6] California Air Resources Board, 2015, December. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

are currently responsible for about half of particulates in the air basin. Wood burning in fireplaces and stoves is another large source of fine particulates.[7]

Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individual with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms.[8] Diesel particulate matter (DPM) is classified a carcinogen by CARB. The air basin is designated nonattainment under the California AAQS for PM_{10} and nonattainment under both the California and National AAQS for $PM_{2.5}$.[9,10]

- **Ozone (O_3)** is commonly referred to as "smog" and is a gas that is formed when ROGs and NO_x,—both by-products of internal combustion engine exhaust—undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions to the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. O_3 levels usually build up during the day and peak in the afternoon. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O_3 can also damage plants and trees and materials such as rubber and fabrics.[11] The air basin is designated nonattainment of the 1-hour California AAQS and 8-hour California and National AAQS for O_3.[12]

- **Lead (Pb)** 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 manufacturers.

  Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic

[7] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). Appendix C: Sample Air Quality Setting, in California Environmental Quality Act Air Quality Guidelines.

[8] South Coast Air Quality Management District (SCAQMD), 2005. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.

[9] California Air Resources Board, 2015, December. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm..

[10] On January 9, 2013, the EPA issued a final rule to determine that the SFBAAB has attained the 24-hour $PM_{2.5}$ National AAQS. This action suspends federal State Implementation Plan planning requirements for the Bay Area. The SFBAAB will continue to be designated nonattainment for the National 24-hour $PM_{2.5}$ standard until such time as BAAQMD elects to submit a redesignation request and a maintenance plan to EPA and EPA approves the proposed redesignation.

[11] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). Appendix C: Sample Air Quality Setting, in California Environmental Quality Act Air Quality Guidelines.

[12] California Air Resources Board, 2015, December. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

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.[13] The air basin is designated in attainment of the California and National AAQS for lead.[14] Because emissions of lead are found only in projects that are permitted by BAAQMD, lead is not an air quality of concern for the proposed project.

1.1.2.2 TOXIC AIR CONTAMINANTS

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 U.S. Code Section 7412[b]) is a toxic air contaminant. Under State law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e. a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs that it identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

At the time of the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs.[15] Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

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[13] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). Appendix C: Sample Air Quality Setting, in California Environmental Quality Act Air Quality Guidelines.

[14] California Air Resources Board, 2015, December. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

[15] California Air Resources Board (CARB), 1999. Final Staff Report: Update to the Toxic Air Contaminant List.

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

CARB has promulgated the following specific rules to limit TAC emissions:

- CARB Rule 2485 (13 CCR Chapter 10, Section 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

- CARB Rule 2480 (13 CCR Chapter 10, Section 2480), Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools

- CARB Rule 2477 (13 CCR Section 2477 and Article 8), Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3 butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

1.1.3 Bay Area Air Quality Management District

BAAQMD is the agency responsible for assuring that the National and California AAQS are attained and maintained in the SFBAAB. BAAQMD is responsible for:

- Adopting and enforcing rules and regulations concerning air pollutant sources.

- Issuing permits for stationary sources of air pollutants.

- Inspecting stationary sources of air pollutants.

- Responding to citizen complaints.

- Monitoring ambient air quality and meteorological conditions.

- Awarding grants to reduce motor vehicle emissions.

- Conducting public education campaigns.
- Air quality management planning.

Air quality conditions in the air basin have improved significantly since the BAAQMD was created in 1955.[16] The BAAQMD prepares air quality management plans (AQMPs) to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares ozone attainment plans (OAPs) for the National O_3 standard and clean air plans for the California O_3 standard. The BAAQMD prepares these AQMPs in coordination with the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). The most recent adopted comprehensive plan is the 2010 Bay Area Clean Air Plan, which was adopted on September 15, 2010, and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools.

1.1.3.1 BAAQMD BAY AREA CLEAN AIR PLAN

2010 Bay Area Clean Air Plan

The purpose of the 2010 Bay Area Clean Air Plan is to: 1) update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement all feasible measures to reduce O_3; 2) consider the impacts of O_3 control measures on PM, TAC, and greenhouse gases (GHGs) in a single, integrated plan; 3) review progress in improving air quality in recent years; and 4) establish emission control measures in the 2009 to 2012 timeframe. The 2010 Bay Area Clean Air Plan also provides the framework for SFBAAB to achieve attainment of the California AAQS. Areas that meet AAQS are classified attainment areas, and areas that do not meet these standards are classified nonattainment areas. Severity classifications for O_3 range from marginal, moderate, and serious to severe and extreme. The attainment status for the SFBAAB is shown in Table 2. The SFBAAB is currently designated a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} AAQS.

Bay Area Draft 2017 Clean Air Plan, Spare the Air, Cool the Climate

BAAQMD adopted the 2017 Clean Air Plan, Spare the Air, Cool the Climate (2017 Clean Air Plan) on April 19, 2017. The 2017 Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan and continues in providing the framework for SFBAAB to achieve attainment of the California and National AAQS. Similar to the Bay Area 2010 Clean Air Plan, the 2017 Clean Air Plan updates the Bay Area's ozone plan, which is based on the "all feasible measures" approach to meet the requirements of the California CAA. Additionally, it sets a goal of reducing health risk impacts to local communities by 20 percent by 2020. Furthermore, the 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the state's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a postcarbon year 2050 that encompasses the following [17]:

[16] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). Appendix C: Sample Air Quality Setting, in California Environmental Quality Act Air Quality Guidelines.

[17] Bay Area Air Quality Management District. 2017, April 19. Final 2017 Clean Air Plan, Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area. http://www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development.

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy has been developed to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, TACs, and GHG from a full range of emission sources. These control measures cover the following sectors: 1) stationary (industrial) sources; 2) transportation; 3) energy; 4) agriculture; 5) natural and working lands; 6) waste management; 7) water; and 8) super-GHG pollutants. Overall, the proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
- Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
- Make the electricity supply carbon-free.
- Electrify the transportation and building sectors.

1.1.3.2 BAAQMD'S COMMUNITY AIR RISK EVALUATION PROGRAM (CARE)

The BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs in the Bay Area. Based on findings of the latest report, DPM was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed 4 percent of the cancer risk-weighted emissions, and benzene contributed 3 percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk–weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). A 75 percent reduction in DPM was predicted between 2005 and 2015 when the inventory accounted for CARB's diesel regulations. Overall, cancer risk from TACs dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for State diesel regulations and other reductions.[18]

[18] Bay Area Air Quality Management District (BAAQMD), 2014. Improving Air Quality & Health in Bay Area Communities, Community Air Risk Program (CARE) Retrospective and Path Forward (2004–2013), April.

Modeled cancer risks from TAC in 2005 were highest near sources of DPM: near core urban areas, along major roadways and freeways, and near maritime shipping terminals. The highest modeled risks were found east of San Francisco, near West Oakland, and the Maritime Port of Oakland. BAAQMD has identified seven impacted communities in the Bay Area:

1. Western Contra Costa County and the cities of Richmond and San Pablo
2. Western Alameda County along the Interstate 880 (I-880) corridor and the cities of Berkeley, Alameda, Oakland, and Hayward
3. San Jose
4. Eastern side of San Francisco
5. Concord
6. Vallejo
7. Pittsburgh and Antioch

The project site is not within a CARE-program impacted community.

The major contributor to acute and chronic non-cancer health effects in the air basin is acrolein (C_3H_4O). Major sources of acrolein are on-road mobile sources and aircraft near freeways and commercial and military airports.[19] Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, the BAAQMD does not conduct health risk screening analysis for acrolein emissions.[20]

1.1.3.3 REGULATION 7, ODOROUS SUBSTANCES

Sources of objectionable odors may occur within the City. BAAQMD's Regulation 7, Odorous Substances, places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property." Under BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.

[19] Bay Area Air Quality Management District (BAAQMD), 2006. Community Air Risk Evaluation Program, Phase I Findings and Policy Recommendations Related to Toxic Air Contaminants in the San Francisco Bay Area.

[20] Bay Area Air Quality Management District (BAAQMD), 2010. Air Toxics NSR Program, Health Risk Screening Analysis Guidelines.

1.1.3.4 OTHER BAAQMD REGULATIONS

In addition to the plans and programs described above, BAAQMD administers a number of specific regulations on various sources of pollutant emissions that would apply to individual development projects allowed under the proposed General Plan, including:

- BAAQMD, Regulation 2, Rule 2, New Source Review
- BAAQMD, Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- BAAQMD Regulation 6, Rule 1, General Requirements
- BAAQMD Regulation 6, Rule 2, Commercial Cooking Equipment
- BAAQMD Regulation 8, Rule 3, Architectural Coatings
- BAAQMD Regulation 8, Rule 4, General Solvent and Surface Coatings Operations
- BAAQMD Regulation 8, Rule 7, Gasoline Dispensing Facilities
- BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing)

1.1.4 Santa Clara Valley Transportation Authority

The Santa Clara Valley Transportation Authority (VTA) is the congestion management agency for Santa Clara County. VTA is tasked with developing a comprehensive transportation improvement program among local jurisdictions that will reduce traffic congestion and improve land use decision making and air quality. VTA's latest congestion management program (CMP) is the 2013 Congestion Management Program. VTA's countywide transportation model must be consistent with the regional transportation model developed by the MTC with ABAG data. The countywide transportation model is used to help evaluate cumulative transportation impacts of local land use decisions on the CMP system. In addition, VTA's updated CMP includes multi-modal performance standards and trip reduction and transportation demand management strategies consistent with the goal of reducing regional VMT in accordance with Senate Bill 375 (SB 375). Strategies identified in the 2013 CMP for Santa Clara County, where local jurisdictions are responsible agencies, include:[21]

- Traffic Level of Service: Monitor and submit report on the level of service (LOS) on CMP roadway network intersections using CMP software and procedures.
- Transportation Model and Database: Certify that member agency models are consistent with the CMP model.
- Community Form and Impact Analysis: Prepare a transportation impact analysis (TIA) for projects that generate 100 or more peak hour trips and submit to the CMP according to TIA Guidelines schedule.

[21] Santa Clara Valley Transportation Authority (VTA), 2013. 2013 Congestion Management Program, http://www.vta.org/sfc/servlet.shepherd/version/download/068A0000001Q7pt, October

- Community Form and Impact Analysis: Submit relevant conditions of approval to VTA for projects generating TIAs.

- Community Form and Impact Analysis: Prepare and submit land use monitoring data to the CMP on all land use projects approved from July 1 to June 30 of the previous year.

- Community Form and Impact Analysis: Submit an annual statement certifying that the member agency has complied with the CMP Land Use Impact Analysis Program.

- Monitoring and Conformance: Outline the requirements and procedures established for conducting annual traffic LOS and land use monitoring efforts. Support the Traffic Level of Service and Community Form and Impact Analysis Elements.

- Capital Improvement Program: Develop a list of projects intended to maintain or improve the level of service on the designated system and to maintain transit performance standards.

- Deficiency Plan: Prepare deficiency plans for facilities that violate CMP traffic LOS standards or that are projected to violate LOS standards using the adopted deficiency plan requirements.

- Deficiency Plan: Submit a deficiency plan implementation status report as part of annual monitoring.

ENVIRONMENTAL SETTING

1.1.5 San Francisco Bay Area Air Basin

The BAAQMD is the regional air quality agency for the SFBAAB, which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[22]

1.1.5.1 METEOROLOGY

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits, resulting in a western coast gap, Golden Gate, and an eastern coast gap, Carquinez Strait, which allow air to flow in and out of the SFBAAB and the Central Valley.

The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast.

[22] This section describing the air basin is from Bay Area Air Quality Management District, 2010 (Revised 2011), Appendix C: Sample Air Quality Setting, in *California Environmental Quality Act Air Quality Guidelines*.

The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

1.1.5.2 WIND PATTERNS

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills.

Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate, or the San Bruno gap. For example, the average wind speed at San Francisco International Airport in July is about 17 knots (from 3:00 p.m. to 4:00 p.m.), compared with only 7 knots at San Jose and less than 6 knots at the Farallon Islands.

The air flowing in from the coast to the Central Valley, called the sea breeze, begins developing at or near ground level along the coast in late morning or early afternoon. As the day progresses, the sea breeze layer deepens and increases in velocity while spreading inland. The depth of the sea breeze depends in large part upon the height and strength of the inversion. If the inversion is low and strong, and hence stable, the flow of the sea breeze will be inhibited and stagnant conditions are likely to result.

In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes are characterized by nighttime drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

1.1.5.3 TEMPERATURE

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold water from the ocean bottom along the coast. On summer afternoons the temperatures at the coast can be 35 degrees Fahrenheit (ºF) cooler than temperatures 15 to 20 miles inland. At night this contrast usually decreases to less than 10ºF.

In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

1.1.5.4 PRECIPITATION

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels tend to be low (i.e. air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions). However, during the winter, frequent dry periods do occur, when mixing and ventilation are low and pollutant levels build up.

1.1.5.5 WIND CIRCULATION

Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some sources are at their peak, namely, commuter traffic (early morning) and wood-burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants up-valley during the day, and cold air drainage flows move the air mass down-valley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

1.1.5.6 INVERSIONS

An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth, i.e. the vertical depth in the atmosphere available for diluting air contaminants near the ground. There are two types of inversions that occur regularly in the SFBAAB. Elevation inversions are more common in the summer and fall, and radiation inversions are more common during the winter. The highest air pollutant concentrations in the SFBAAB generally occur during inversions.

1.1.6 Existing Ambient Air Quality

1.1.6.1 ATTAINMENT STATUS OF THE SFBAAB

Areas that meet AAQS are classified attainment areas, and areas that do not meet these standards are classified nonattainment areas. Severity classifications for O_3 range from marginal, moderate, and serious to severe and extreme. The attainment status for the air basin is shown in Table 2. The air basin is currently designated a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} AAQS.

Table 2 Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	Classification revoked (2005)
Ozone – 8-hour	Nonattainment (serious)	Nonattainment

Table 2 Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin

Pollutant	State	Federal
PM_{10}	Nonattainment	Unclassified/Attainment
$PM_{2.5}$	Nonattainment	Unclassified/Attainment[a]
CO	Attainment	Attainment
NO_2	Attainment	Unclassified
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	Attainment	Unclassified/Attainment
All others	Unclassified/Attainment	Unclassified/Attainment

Source: California Air Resources Board, 2015, December. Area Designations Maps: State and National. http://www.arb.ca.gov/desig/adm/adm.htm.

[a] In December 2014, US EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ National AAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015 (BAAQMD 2016).

1.1.6.2 EXISTING AMBIENT AIR QUALITY

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements made by the BAAQMD. The BAAQMD monitoring station closest to the project site is the San Jose—Jackson Street Monitoring Station. Data from this station are summarized in Table 3. The data show occasional violations of the State PM_{10} and O_3 standards, as well as federal $PM_{2.5}$ standards. The State and federal CO and NO_2 standards have not been exceeded in the last five years in the vicinity of the City.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2012	2013	2014	2015	2016
Ozone (O_3)[a]					
State 1-Hour ≥ 0.09 ppm	1	0	0	0	0
State 8-hour ≥ 0.07 ppm	0	1	0	2	0
Federal 8-Hour > 0.075 ppm	0	1	0	2	0
Maximum 1-Hour Conc. (ppm)	0.101	0.093	0.089	0.094	0.087
Maximum 8-Hour Conc. (ppm)	0.063	0.080	0.066	0.081	0.066
Carbon Monoxide (CO)[a]					
State 8-Hour > 9.0 ppm	0	*	*	*	*
Federal 8-Hour ≥ 9.0 ppm	0	*	*	*	*
Maximum 8-Hour Conc. (ppm)	1.86	*	*	*	*
Nitrogen Dioxide (NO_2)[a]					
State 1-Hour ≥ 0.18 (ppm)	0	0	0	0	0
Maximum 1-Hour Conc. (ppb)	67	58	58	49	51
Coarse Particulates (PM_{10})[a]					
State 24-Hour > 50 µg/m^3	1	5	1	1	0
Federal 24-Hour > 150 µg/m^3	0	0	0	0	0
Maximum 24-Hour Conc. (µg/^{m3})	59.6	58.1	54.7	58.0	41.0
Fine Particulates ($PM_{2.5}$)\[a]					
Federal 24-Hour > 35 µg/m^3	2	6	2	2	0
Maximum 24-Hour Conc. (µg/m^3)	38.4	57.7	60.4	49.4	22.7

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2012	2013	2014	2015	2016

Source: California Air Resources Board, 2016, Air Pollution Data Monitoring Cards (2012, 2013, 2014, 2015 and 2016), Accessed August 16, 2017, http://www.arb.ca.gov/adam/index.html.
Notes: ppm: parts per million; ppb: parts per billion; $\mu g/m^3$: or micrograms per cubic meter
* = insufficient data
[a] Data from San Jose—Jackson Street Monitoring Station.

1.1.6.3 EXISTING EMISSIONS

The 2.2-acre project site is currently occupied by existing surface parking lots and lights, which generate criteria air pollutants emissions from energy use.

1.1.7 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, since the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the population.

The nearest sensitive receptors to the project site are the single-family residences approximately 60 feet north and east of the project site across Narvaez Avenue. Other nearby off-site sensitive receptors include the single-family residences approximately 200 feet to the south across Branham Lane and the single- and multi-family residences to the west and southwest, respectively, across State Route 87.

1.2 METHODOLOGY

The BAAQMD "CEQA Air Quality Guidelines" were prepared to assist in the evaluation of air quality impacts of projects and plans proposed in the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended 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 the 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 modified procedures for assessing impacts related to risk and hazard impacts; however, this later amendment regarding risk and hazards was the subject of the December 17, 2015 Supreme Court decision (*California Building Industry Association v BAAQMD*), which clarified that CEQA does not require an evaluation of impacts of the environment on a project.[23]

1.2.1 Criteria Air Pollutant Emissions

The proposed project qualifies as a project-level project under BAAQMD's criteria. For project-level analyses, BAAQMD has adopted screening criteria and significance criteria that would be applicable to the proposed project. If a project exceeds the screening level, it would be required to conduct a full analysis using BAAQMD's significance criteria.

Regional Significance Criteria

BAAQMD's criteria for regional significance for projects that exceed the screening thresholds are shown in Table 4. Criteria for both construction and operational phases of the project are shown.

Table 4 BAAQMD Regional (Mass Emissions) Criteria Air Pollutant Significance Thresholds

	Construction Phase	Operational Phase	
Pollutant	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (Tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
PM_{10} and $PM_{2.5}$ Fugitive Dust	Best Management Practices	None	None

Source: Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification.

Local CO Hotspots

Congested intersections have the potential to create elevated concentrations of CO, referred to as CO hotspots. The significance criteria for CO hotspots are based on the California AAQS for CO, which is 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average). However, with the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the California and National AAQS, and CO concentrations in the SFBAAB have steadily declined. Because CO

[23] On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds of significance in the BAAQMD CEQA Air Quality Guidelines. The court did not determine whether the thresholds of significance were valid on their merits, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the BAAQMD complied with CEQA. Following the court's order, the BAAQMD released revised CEQA Air Quality Guidelines in May of 2012 that include guidance on calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, and which set aside the significance thresholds. The Alameda County Superior Court, in ordering BAAQMD to set aside the thresholds, did not address the merits of the science or evidence supporting the thresholds, and in light of the subsequent case history discussed below, the science and reasoning contained in the BAAQMD 2011 CEQA Air Quality Guidelines provide the latest state-of-the-art guidance available. On August 13, 2013, the First District Court of Appeal ordered the trial court to reverse the judgment and upheld the BAAQMD's CEQA Guidelines. (*California Building Industry Association versus BAAQMD, Case No. A135335 and A136212 (Court of Appeal, First District, August 13, 2013*).)

concentrations have improved, BAAQMD does not require a CO hotspot analysis if the following criteria are met:

- Project is consistent with an applicable congestion management program established by the County Congestion Management Agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.

- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

- The project traffic would not increase traffic volumes at affected intersection to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g. tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).[24]

Odors

BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. In addition, odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property. Under BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30 day period can be declared a public nuisance. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.[25]

1.2.2 Community Risk and Hazards

The BAAQMD's significance thresholds for local community risk and hazard impacts apply to the siting of a new source. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project (*California Building Industry Association v. Bay Area Air Quality Management District [2015] 62 Cal.4th 369 [Case No. S213478]*). CEQA does not require an environmental evaluation to analyze the environmental effects of attracting development and people to an area. However, the environmental evaluation must analyze the impacts of environmental hazards on future users when the proposed project exacerbates an existing environmental hazard or condition or if there is an exception to this exemption identified in the Public Resources Code. Schools, residential, commercial, and

[24] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification.

[25] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). *California Environmental Quality Act Air Quality Guidelines*.

office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

For assessing community risk and hazards, sources within a 1,000-foot radius are considered. Sources are defined as freeways, high volume roadways (with volume of 10,000 vehicles or more per day or 1,000 trucks per day), and permitted sources.[26,27]

The proposed project would generate TACs and $PM_{2.5}$ during construction activities that could elevate concentrations of air pollutants at the surrounding residential receptors. The BAAQMD has adopted screening tables for air toxics evaluation during construction.[28] Construction-related TAC and $PM_{2.5}$ impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors, as applicable.[29]

The project threshold identified below is applied to the proposed project's construction phase emissions:

Community Risk and Hazards – Project

Project-level construction emissions of TACs or $PM_{2.5}$ from the proposed project to individual sensitive receptors within 1,000 feet of the project site that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- Non-compliance with a qualified Community Risk Reduction Plan;
- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e. chronic or acute) hazard index greater than 1.0 would be a significant cumulatively considerable contribution;
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ from a single source would be a significant, cumulatively considerable contribution.[30]

Community Risk and Hazards – Cumulative

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone.

A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds the following:

- Non-compliance with a qualified Community Risk Reduction Plan; or

[26] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification.

[27] Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards.

[28] Bay Area Air Quality Management District (BAAQMD), 2010, Screening Tables for Air Toxics Evaluations during Construction.

[29] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification.

[30] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification.

- 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; or

- 0.8 μg/m³ annual average $PM_{2.5}$.[31]

Current BAAQMD guidance recommends the determination of cancer risks using the Office of Environmental Health Hazard Assessment's (OEHHA) methodology, which was originally adopted in 2003.[32,33] In February 2015, OEHHA adopted new health risk assessment guidance which includes several efforts to be more protective of children's health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals, and age-specific breathing rates.[34] However, BAAQMD has not formally adopted the new OEHHA methodology into their CEQA guidance. To be conservative, the cancer risks associated with project implementation and significance conclusions were determined using the new 2015 OEHHA guidance for risk assessments.

2. Greenhouse Gas Emissions

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[35,36,37] The major GHG are briefly described below.

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[31] Bay Area Air Quality Management District (BAAQMD), 2010 (Revised 2011). California Environmental Quality Act Air Quality Guidelines, Appendix D: Threshold of Significance Justification.

[32] Bay Area Air Quality Management District (BAAQMD), 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards.

[33] Office of Environmental Health Hazard Assessment (OEHHA), 2003. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

[34] Office of Environmental Health Hazard Assessment (OEHHA), 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

[35] Intergovernmental Panel on Climate Change, 2001. Third Assessment Report: Climate Change 2001, New York: Cambridge University Press.

[36] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop of changing radiative forcing rather than a primary cause of change.

[37] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities. However, state and national GHG inventories do not include black carbon yet due to ongoing work related to resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global warming potential (GWP) gases.

  - ***Chlorofluorocarbons (CFCs)*** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
  - ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs.

  - ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced, along with HFCs, as alternatives to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

  - ***Sulfur Hexafluoride (SF_6)*** is a colorless gas, soluble in alcohol and ether and slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

  - ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs. [38,39]

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high global warming potential (GWP) gases. Table 5 lists the GHG and their relative GWP compared to CO_2. The GWP is used to convert GHGs to CO_2-equivalent (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Second Assessment Report, GWP values for CH_4 are such that a project generating 10 metric tons (MT) of CH_4 would be equivalent to 210 MT of CO_2.

[38] United States Environmental Protection Agency (EPA), 2015. Overview of Greenhouse Gases. http://www3.epa.gov/climatechange/ghgemissions/gases.html.

[39] Intergovernmental Panel on Climate Change (IPCC), 2001. Third Assessment Report: Climate Change 2001, New York: Cambridge University Press.

Table 5 GHG Emissions and their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO_2[1]	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	50 to 200	50 to 200	1	1
Methane[2] (CH_4)	12 (±3)	12	21	25
Nitrous Oxide (N_2O)	120	114	310	298
Hydrofluorocarbons:				
HFC-23	264	270	11,700	14,800
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF_4	50,000	50,000	6,500	7,390
Perfluoroethane: C_2F_6	10,000	10,000	9,200	12,200
Perfluorobutane: C_4F_{10}	2,600	NA	7,000	8,860
Perfluoro-2-methylpentane: C_6F_{14}	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF_6)	3,200	NA	23,900	22,800

Source: Intergovernmental Panel on Climate Change, 1996, Second Assessment Report: Climate Change 1996, New York: Cambridge University Press; and Intergovernmental Panel on Climate Change, 2007, Fourth Assessment Report: Climate Change 2001, New York: Cambridge University Press.

Notes: The IPCC has published updated global warming potential (GWP) values in its Fifth Assessment Report (2013) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, GWP values identified in the Second Assessment Report are still used by SCAQMD to maintain consistency in GHG emissions modeling. In addition, the 2008 Scoping Plan was based on the GWP values in the Second Assessment Report.

1 Based on 100-year time horizon of the GWP of the air pollutant relative to CO_2 .

2 The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

2.1 CALIFORNIA'S GREENHOUSE GAS SOURCES AND RELATIVE CONTRIBUTION

California is 20th largest GHG emitter in the world and the second largest emitter of GHG in the United States, only surpassed by Texas.[40] However, California also has over 12 million more people than the State of Texas. Because of more stringent air emission regulations, in 2001 California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO_2 emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services).[41]

[40] California Air Resources Board. 2014, March. California Greenhouse Gas Inventory for 2000-2012 - by Category as Defined in the 2008 Scoping Plan. https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2012/ghg_inventory_scopingplan_00-12_2014-03-24.pdf.

[41] California Energy Commission (CEC), 2006. Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004, Report CEC-600-2006-013-SF, December.

In 2016, the statewide GHG emissions inventory was updated for 2000 to 2014 emissions using the GWPs in IPCC's Fourth Assessment Report (AR4).[42] Based on these GWPs, California produced 442 $MMTCO_2e$ GHG emissions in 2014. California's transportation sector remains the single largest generator of GHG emissions, producing 36.1 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent and electric power generation made up 20.0 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (8.7 percent), agriculture (8.2 percent), high global warming potential GHGs (3.9 percent), and recycling and waste (2.0 percent).[43]

2.2 HUMAN INFLUENCE ON CLIMATE CHANGE

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that are attributable to human activities. The amount of CO_2 in the Earth's atmosphere has increased by more than 35 percent since preindustrial times, and the concentration of CO_2 in the atmosphere has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation.[44] These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone.[45] Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants.[46] In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime.[47]

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historic trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas;
- Warmer and more frequent hot days and nights over most land areas;

[42] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

[43] California Air Resources Board (CARB). 2016. 2016 Edition California Greenhouse Gas Inventory for 2000-2014 — by Category as Defined in the 2008 Scoping Plan. http://www.arb.ca.gov/cc/inventory/data/data.htm, June.

[44] Intergovernmental Panel on Climate Change (IPCC), 2007. Fourth Assessment Report: Climate Change 2007, New York: Cambridge University Press.

[45] At the end of the last ice age, the concentration of CO_2 increased by around 100 ppm (parts per million) over about 8,000 years, or approximately 1.25 ppm per century. Since the start of the industrial revolution, the rate of increase has accelerated markedly. The rate of CO_2 accumulation currently stands at around 150 ppm/century—more than 200 times faster than the background rate for the past 15,000 years.

[46] California Climate Action Team (CAT), 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature, March.

[47] Intergovernmental Panel on Climate Change (IPCC), 2007. *Fourth Assessment Report: Climate Change 2007,* New York: Cambridge University Press.

- An increase in frequency of warm spells/heat waves over most land areas;
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas;
- Areas affected by drought increases;
- Intense tropical cyclone activity increases;
- Increased incidence of extreme high sea level (excluding tsunamis).

2.3 POTENTIAL CLIMATE CHANGE IMPACTS FOR CALIFORNIA

Observed changes over the last several decades across the western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada. By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1–8.6°F, depending on emissions levels.[48]

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures, 2) a smaller fraction of precipitation falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of 5 to 30 days earlier in the springs, and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms.[49] According to the California Climate Action Team, even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 6 and include public health impacts, water resources impacts, agricultural impacts, coastal sea level impacts, forest and biological resource impacts, and energy impacts.

[48] California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. July

[49] California Climate Action Team (CAT), 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March.

Table 6 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: California Energy Commission, 2006, Our Changing Climate: Assessing the Risks to California, 2006 Biennial Report, California Climate Change Center, CEC-500-2006-077; California Energy Commission, 2008, The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California, CEC-500-2008-0077. California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. July.

Specific climate change impacts that could affect the project include:

- ***Water Resources Impacts.*** By late-century, all projections show drying, and half of the projections suggest 30-year average precipitation will decline by more than 10 percent below the historical average. This drying trend is caused by an apparent decline in the frequency of rain and snowfall. Even in projections with relatively small or no declines in precipitation, central and southern parts of the State can be expected to be drier from the warming effects alone as the spring snowpack will melt sooner, and the moisture contained in soils will evaporate during long dry summer months.[50]
- ***Wildfire Risks.*** Earlier snowmelt, higher temperatures and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk will also be influenced by potential climate-related changes in vegetation and ignition potential from lightning. Human activities will

[50] California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. July.

continue to be the biggest factor in ignition risk. The number of large fires statewide are estimated to increase from 58 percent to 128 percent above historical levels by 2085. Under the same emissions scenario, estimated burned area will increase by 57 percent to 169 percent, depending on location.[51]

- ***Health Impacts.*** Many of the gravest threats to public health in California stem from the increase of extreme conditions, principally more frequent, more intense, and longer heat waves. Particular concern centers on the increasing tendency for multiple hot days in succession, and heat waves occurring simultaneously in several regions throughout the State. Public health could also be affected by climate change impacts on air quality, food production, the amount and quality of water supplies, energy pricing and availability, and the spread of infectious diseases. Higher temperatures also increase ground-level ozone levels. Furthermore, wildfires can increase particulate air pollution in the major air basins of California.[52]

- ***Increase Energy Demand.*** Increases in average temperature and higher frequency of extreme heat events combined with new residential development across the State will drive up the demand for cooling in the increasingly hot and longer summer season and decrease demand for heating in the cooler season. Warmer, drier summers also increase system losses at natural gas plants (reduced efficiency in the electricity generation process from higher temperatures) and hydropower plants (lower reservoir levels). Transmission of electricity will also be affected by climate change. Transmission lines lose 7 percent to 8 percent of transmitting capacity in high temperatures while needing to transport greater loads. This means that more electricity needs to be produced to make up for the loss in capacity and the growing demand.[53]

2.1 REGULATORY FRAMEWORK

2.1.1 Federal Laws

The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.[54]

The EPA's endangerment finding covers emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world The first three are applicable to the proposed project

[51] California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. July.

[52] California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. July.

[53] California Climate Change Center. 2012. Our Changing Climate 2012, Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. July.

[54] United States Environmental Protection Agency (EPA), 2009. EPA: Greenhouse Gases Threaten Public Health and the Environment, Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity, December, http://yosemite.epa.gov/opa/admpress.nsf/0/08D11A451131BCA585257685005BF252.

because they constitute the majority of GHG emissions from the onsite land uses, and per BAAQMD guidance are the GHG emissions that should be evaluated as part of a GHG emissions inventory.

2.1.1.1 US MANDATORY REPORTING RULE FOR GREENHOUSE GASES (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO_2 per year are required to submit an annual report.

2.1.1.2 UPDATE TO CORPORATE AVERAGE FUEL ECONOMY STANDARDS (2010/2012)

The current Corporate Average Fuel Economy (CAFE) standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon [mpg] by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be considered to be in compliance with State requirements. The federal government issued new standards in 2012 for model years 2017–2025, which will require a fleet average of 54.5 mpg in 2025.

2.1.1.3 EPA REGULATION OF STATIONARY SOURCES UNDER THE CLEAN AIR ACT (ONGOING)

Pursuant to its authority under the Clean Air Act (CAA), the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to the President's 2013 Climate Action Plan, the EPA will be directed to also develop regulations for existing stationary sources.

2.1.2 State Laws

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32, and Senate Bill 375.

2.1.2.1 EXECUTIVE ORDER S-03-05

Executive Order S-03-05, signed June 1, 2005. Executive Order S-03-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

2.1.2.2 ASSEMBLY BILL 32, THE GLOBAL WARMING SOLUTIONS ACT

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The 2008 Scoping Plan was adopted by CARB on December 11, 2008. The *2008 Scoping Plan* identified that GHG emissions in California are anticipated to be approximately 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state (CARB 2008). In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 $MTCO_2e$ per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated GWPs in the Fourth Assessment Report, and the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 $MMTCO_2e$.[55]

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals.[56] CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit.[57]

2.1.2.3 EXECUTIVE ORDER B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

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[55] California Air Resources Board (CARB). 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.

[56] California Air Resources Board (CARB). 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.

[57] California Air Resources Board (CARB). 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.

2.1.2.4 SENATE BILL 32 AND ASSEMBLY BILL 197

In September 2016, Governor Brown signed Senate Bill 32 and Assembly Bill 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On January 20, 2017, CARB released the *Draft 2017 Climate Change Scoping Plan Update* with adoption hearings planned for April of 2017. The *Draft 2017 Climate Change Scoping Plan Update* includes the potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The *Draft 2017 Scoping Plan* establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.[58] California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks;
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030;
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks;
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydroflurocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030;
- Post-2020 Cap-and-Trade Program that includes declining caps;
- 20 percent reduction in GHG emissions from refineries by 2030;59
- Continued implementation of SB 375;

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[58] California Air Resources Board. 2017, January 20. The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

[59] The plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources in accordance with AB 197. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources.

- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the *2017 Climate Change Scoping Plan* also identified local governments as essential partners in achieving the State's long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 $MTCO_2e$ or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a climate action plan or other plan to reduce GHG emissions is appropriate.[60]

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 4.6-3. It includes the existing renewables requirements, advanced clean cars, the "10 percent" LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 50 $MMTCO_2e$ above the target in 2030. In order to make up the "gap", a new Post- 2020 Cap-and-Trade Program and refinery measure are key components of the 2017 Scoping Plan.

TABLE 4.6-3 CLIMATE CHANGE SCOPING PLAN EMISSIONS REDUCTIONS CAP

Modeling Scenario	2030 GHG Emissions $MMTCO_2e$
Reference Scenario (Business-as-Usual)	392.4
With Known Commitments	310
2030 GHG Target	**260**

Source: California Air Resources Board. 2017, January 20. The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf..

Table 4.6-4, provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

TABLE 4.6-4 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS CHANGE BY SECTOR

Scoping Plan Sector	1990 $MMTCO_2e$	2030 Proposed Plan Ranges $MMTCO_2e$	% Change from 1990
Agricultural	26	24-25	-4% to -8%
Residential and Commercial	44	38-40	-9% to -14%
Electric Power	108	42-62	-43% to -61%

[60] California Air Resources Board. 2017, January 20. The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

TABLE 4.6-4 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS CHANGE BY SECTOR

Scoping Plan Sector	1990 $MMTCO_2e$	2030 Proposed Plan Ranges $MMTCO_2e$	% Change from 1990
High GWP	3	8-11	167% to 267%
Industrial	98	77-87	-11% to -21%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-27% to -32%
Net Sink[1]	-7	TBD	TBD
Sub Total	431	300-345	-20% to -30%
Cap-and-Trade Program	NA	40-85	NA
Total	**431**	**260**	**-40%**

Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.

1 Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Source: California Air Resources Board. 2017, January 20. The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf..

2.1.2.5 SENATE BILL 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter (PM) produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, as specified. The bill also establishes targets for reducing organic waste in landfill. In April 2016, CARB adopted the *Proposed Short-Lived Climate Pollutant Strategy*, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use.[61] In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

2.1.2.6 SENATE BILL 375

SB 375, the Sustainable Communities and Climate Protection Act, was adopted in 2005 to connect the Scoping Plan's GHG emissions reductions targets for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 regions in California managed by a metropolitan planning organization (MPO). The Metropolitan Transportation Commission

[61] California Air Resources Board (CARB). 2016, April. Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/meetings/04112016/proposedstrategy.pdf.

(MTC) is the MPO for the nine-county San Francisco Bay Area region. MTC's targets are a 7 percent per capita reduction in GHG emissions from 2005 by 2020, and 15 percent per capita reduction from 2005 levels by 2035.[62] SB 375 requires CARB to periodically update the targets, no later than every 8 years. CARB plans to propose updated targets for consideration in 2016, with the intent to make them effective in 2018. Sustainable communities strategies (SCSs) adopted in 2018 would be subject to the updated targets.[63]

Plan Bay Area, Strategy for a Sustainable Region

Plan Bay Area is the Bay Area's Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS). The Plan Bay Area was adopted jointly by ABAG and MTC July 18, 2013.[64] The SCS lays out a development scenario for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by CARB. According to Plan Bay Area, the Plan meets a 16 percent per capita reduction of GHG emissions by 2035 and a 10 percent per capita reduction by 2020 from 2005 conditions.

As part of the implementing framework for Plan Bay Area, local governments have identified Priority Development Areas (PDAs) to focus growth. PDAs are transit-oriented, infill development opportunity areas within existing communities. Overall, well over two-thirds of all regional growth in the Bay Area by 2040 is allocated within PDAs. PDAs are expected to accommodate 80 percent (or over 525,570 units) of new housing and 66 percent (or 744,230) of new jobs in the region.[65] The proposed Project site is not within a PPA.[66] The proposed project is within the North San Jose priority development area.[67] The vision for North San Jose includes new residential units, retail development, and the creation of new jobs with leading technology industries.[68] The proposed project is consistent with the SCS vision for this PDA.

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[62] California Air Resources Board (CARB), 2010. Staff Report, Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375, August.

[63] California Air Resources Board (CARB), 2015, September 15. ARB Process and Schedule for SB 375 Target Update. http://www.arb.ca.gov/cc/sb375/sb375.htm.

[64] It should be noted that the Bay Area Citizens filed a lawsuit on MTC's and ABAG's adoption of *Plan Bay Area.*

[65] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013. *Plan Bay Area: Strategy for a Sustainable Region,* July 18.

[66] Associated Bay Area Governments (ABAG). July 2015. Priority Development Area Showcase, http://gis.abag.ca.gov/website/PDAShowcase/.

[67] Association of Bay Area Governments (ABAG). 2013. Priority Development Showcase. http://gis.abag.ca.gov/website/PDAShowcase/ Accessed February 2017.

[68] Association of Bay Area Governments (ABAG)/ Metropolitan Transportation Commission (MTC). 2012, May. Visions for Priority Development Areas, Jobs-Housing Connection Strategy. http://www.planbayarea.org/sites/default/files/pdf/JHCS/PDA_Narratives.pdf

Draft Plan Bay Area 2040

The final draft of the Plan Bay Area 2040 was recently released and has an anticipated adoption in summer of 2017. It would serve as a limited and focused update to Plan Bay Area 2013, with updated planning assumptions that incorporate key economic, demographic, and financial trends from the last several years.[69] Per the Plan Bay Area 2040, while the projected number of new housing units and new jobs within PDAs would increase to 629,000 units and 707,000 jobs compared to the adopted Plan Bay Area 2013, its overall share would be reduced to 77 percent and 55 percent.[26] However, the Plan Bay Area 2040 plan would remain on track in meeting the 16 percent per capita reduction of GHG emissions by 2035.[70]

2.1.2.7 ASSEMBLY BILL 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles.[71] In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.[72]

2.1.2.8 EXECUTIVE ORDER S-1-07

On January 18, 2007, the State set a new Low Carbon Fuel Standard (LCFS) for transportation fuels sold in California. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The LCFS applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle," using the most economically feasible methods.

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[69] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). 2017, March. Plan Bay Area 2040 Draft Plan.

[70] Ibid.

[71] See also the discussion on the update to the CAFE standards under federal laws, above. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

[72] See also the discussion on the update to the CAFE standards under Federal Laws, above. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

2.1.2.9 EXECUTIVE ORDER B-16-2012

On March 23, 2012, the State identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g. electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's State vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

2.1.2.10 SENATE BILLS 1078 AND 107 AND EXECUTIVE ORDER S-14-08

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the State's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SBX1-2). The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

2.1.2.11 SENATE BILL 350

Senate Bill 350 (de Leon), was signed into law September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

2.1.2.12 CALIFORNIA BUILDING STANDARDS CODE – BUILDING ENERGY EFFICIENCY STANDARDS

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2013 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building Energy Efficiency Standards, which went into effect on July 1, 2014. Buildings that are constructed in accordance with the 2013 Building Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

Most recently, the CEC adopted the 2016 Building Energy Efficiency Standards. The 2016 Standards will continue to improve upon the current 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. These standards will go into effect on January 1, 2017. Under the

2016 Standards, residential buildings are 28 percent more energy efficient than the 2013 Standards while non-residential buildings are 5 percent more energy efficient than the 2013 Standards.[73]

The 2016 standards will not get us to zero net energy (ZNE). However, they do get us very close to the State's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve ZNE for newly constructed residential buildings throughout California. [74]

2.1.2.13 CALIFORNIA GREEN BUILDING STANDARDS CODE – CALGREEN

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, CCR). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[75] The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011, was last updated in 2016.

2.1.2.14 2006 APPLIANCE ENERGY EFFICIENCY REGULATIONS

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

2.1.2.15 SOLID WASTE REGULATIONS

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code 40050 et seq.) set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327, California Public Resources Code Sections 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a

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[73] California Energy Commission (CEC). 2015, June 10. 2016 Building Energy Efficiency Standards, Adoption Hearing Presentation. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents.

[74] California Energy Commission (CEC). 2015. 2016 Building Energy Efficiency Standards Frequently Asked Questions. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf.

[75] The green building standards became mandatory in the 2010 edition of the code.

model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2013 California Green Building Standards Code (Title 24, California Code of Regulations, Part 11) also requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

2.1.2.16 WATER EFFICIENCY REGULATIONS

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the Energy Commission, in consultation with the department, to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

2.1.3 Local Regulations

2.1.3.1 SAN JOSE GREENHOUSE GAS REDUCTION STRATEGY

The City of San José has prepared the Greenhouse Gas Reduction Strategy (GHGRS) in conjunction with the preparation of the Envision San José 2040 General Plan Update process to ensure that the implementation of the General Plan Update aligns with the implementation requirements of Assembly Bill 32 (AB32) – the Global Warming Solutions Act of 2006. The GHGRS identifies a series of GHG emissions reduction measures to be implemented by development projects that would allow the City to achieve its GHG reduction goals. The measures center around five strategies: energy, waste, water, transportation, and carbon sequestration.

2.2 ENVIRONMENTAL SETTING

2.2.1 Existing Emissions

The 2.2-acre project site is currently occupied by an existing office building at approximately 50% vacancy, which generate greenhouse gas emissions from generates GHG emissions from mobile, area, and energy sources.

2.3 METHODOLOGY

The BAAQMD CEQA Air Quality Guidelines 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 GHG emissions impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background information.

2.3.1 Greenhouse Gas Emissions

BAAQMD has a tiered approach for assessing GHG emissions impacts of a project. If a project is within the jurisdiction of an agency that has a "qualified" GHG reduction strategy, the project can assess consistency of its GHG emissions impacts with the reduction strategy.

BAAQMD has adopted screening criteria and significance criteria for development projects that would be applicable for the proposed project. If a project exceeds the Guidelines' GHG screening-level sizes, the project would be required to conduct a full GHG analysis using the following BAAQMD significance criteria:

- 1,100 MT of CO_2e per year; or
- 4.6 MT of CO_2e per service population (SP) for year 2020

AB 32 requires the statewide GHG emission be reduced to 1990 levels by 2020. On a per-capita basis, that means reducing the annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.[76] Hence, BAAQMD's per capita significance threshold is calculated based on the State's land use sector emissions inventory prepared by CARB and the demographic forecasts for the 2008 Scoping Plan. The land use sector GHG emissions for 1990 were estimated by BAAQMD, as identified in Appendix D of the BAAQMD CEQA Guidelines, to be 295.53 $MMTCO_2e$and the 2020 California service population (SP) to be 64.3 million. Therefore, the significance threshold that would ensure consistency with the GHG reduction goals of AB 32 is estimated at 4.6 $MTCO_2e$/SP for year 2020.[77] Land use development projects include residential, commercial, industrial, and public land use facilities. Direct sources of emissions may include on-site combustion of energy, such as natural gas used for heating and cooking, emissions from industrial processes (not applicable for most land use development projects), and fuel combustion from mobile sources. Indirect emissions are emissions produced off-site from energy production, water conveyance due to a project's energy use and water consumption, and non-biogenic emissions from waste disposal. Biogenic CO_2 emissions are not included in the quantification of a project's GHG emissions, because biogenic CO_2 is derived from living biomass (e.g. organic matter present in wood, paper, vegetable oils, animal fat, food, animal, and yard waste) as opposed to fossil fuels. Although GHG emissions from waste generation are included in the GHG inventory for the proposed project, the efficiency threshold of 4.6 $MTCO_2e$ per service population for 2020 identified above does not include the waste sector, and it is therefore not considered in the evaluation.

[76] California Air Resources Board (CARB), 2008. *Climate Change Scoping Plan: A Framework for Change.*
[77] Bay Area Air Quality Management District, 2011 (revised), California Environmental Quality Act Air Quality Guidelines.

BAAQMD does not have thresholds of significance for construction-related GHG emissions, but requires quantification and disclosure of construction-related GHG emissions.[78]

[78] Bay Area Air Quality Management District, 2011 (revised), California Environmental Quality Act Air Quality Guidelines.

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CalEEMod Inputs (Construction Run)

Name:	Hilton Garden Inn Airport Hotel
Project Location:	111 E Gish Road, San Jose
County/Air Basin:	San Jose
Climate Zone:	5
Land Use Setting:	Urban
Operational Year:	2019
Utility Company:	Pacific Gas and Electric

	SQFT	**Acreage**
Total Site Area:	95,832	2.20
Hotel	96,260	0.50
Landscaping	18,415	0.42
Hardscape	4,259	0.10
Parking	51,472	1.18

CalEEMod Land Use Inputs

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
Hotel	Recreation	Hotel	150.00	Room	0.92	96,260
Hardscape	Parking	Non-Asphalt	4.26	1000sqft	0.10	4,259
Parking	Parking	Parking Lot	51.47	1000sqft	1.18	51,472
					2.20	**151,991**

Component	Amount to be Demolished (SQFT)*	Amount to be Demolished (Tons)	Haul Truck Capacity (tons)**	Haul Distance (miles)	Total Trip Ends	Trip Ends/ day	Duration (days)
Asphalt Demolition	39,192	293.94	20	20	30	2	20
Building Demolition	56,640	2,605.44	20	20	262	14	20
Totals	95,832	**2,899.38**			**292**	16	

Note: See Demo Haul Worksheets for Calcs

**Provided by the Applicant.*

***CalEEMod Default*

Architectural Coating

BAAQMD Regulation 8 Rule 3

Interior Paint VOC content:	100
Exterior Paint VOC content:	150

Non-Residential Architectural Coating

Percentage of Buildings' Interior Painted:	100%
Percentage of Buildings' Exterior Painted:	100%

Non-Residential Structures	Land Use Square Feet	CalEEMod Application Factor	Total Paintable Surface Area[2]	Paintable Interior Area[1]	Paintable Exterior Area[1]
Hotel	96,260	2.0	182,920	**137,190**	**45,730**
Parking	51,472	0.06	3,088	0	**3,088**

Notes:

1 *CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a stadium (i.e., striping), in which 6% of surface area is painted.

2 ** Applied CalEEMod Methodology in calculating total. The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. The default values based on SCAQMD methods used in their coating rules are 75% for the interior surfaces and 25% for the exterior shell

Construction - Unmitigated Run

BAAQMD BMPs

Replace Ground Cover	PM10:	5	% Reduction
	PM25:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	15	mph
Clean Paved Road		9	% PM Reduction

CalEEMod Construction Phase Inputs*

5-Day Work Week/8 hours per day

Phase Name	Phase Type	Start Date	End Date	CalEEMod Total Days	Total Days
Demolition	Demolition	1/1/2018	1/26/2018	20	25
Demolition Hauling	Demolition	1/1/2018	1/26/2018	20	25
Site Preparation	Site Preparation	1/27/2018	1/31/2018	3	4
Grading	Grading	2/1/2018	2/8/2018	6	7
Building Construction	Building Construction	2/9/2018	12/13/2018	220	307
Paving	Paving	11/30/2018	12/13/2018	10	13
Painting	Architectural Coating	11/30/2018	12/13/2018	10	13

Year	Start Date	End Date	Days
2018	1/1/2018	12/31/2018	261
			364

*Based on construction schedule provided by the Applicant.

Modeling conservatively assumes architectural coatings and paving would overlap with building construction in year 2018.

CalEEMod Construction Off-Road Equipment Inputs*

Equipment Type	CalEEMod Equipment Type	Unit Amount	Hours /Day	HP	LF
Demolition					
Concrete/Industrial Saws	Concrete/Industrial Saws	1	8	81	0.73
Rubber Tired Dozers	Rubber Tired Dozers	1	8	247	0.4
Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes	3	8	97	0.37
Water Trucks		4			
Worker Trips		13			
Vendors Trips		0			
Site Prep					
Graders	Graders	1	8	187	0.41
Scrapers	Scrapers	1	8	367	0.48
Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes	1	7	97	0.37
Water Trucks		4			
Worker Trips		8			
Vendors Trips		0			
Grading					
Graders	Graders	1	8	187	0.41
Rubber Tired Dozers	Rubber Tired Dozers	1	8	247	0.4
Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes	2	7	97	0.37
Water Trucks		4			
Worker Trips		10			
Vendors Trips		0			
Building Construction					
Cranes**	Cranes	1	8	231	0.29
Forklifts	Forklifts	2	7	89	0.2
Generator Sets	Generator Sets	1	8	84	0.74
Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes	1	6	97	0.37
Welders	Welders	3	8	46	0.45
Worker Trips		62			
Vendors Trips		24			
Paving					
Cement and Mortar Mixers	Cement and Mortar Mixers	1	8	9	0.56
Pavers	Pavers	1	8	130	0.42
Paving Equipment	Paving Equipment	1	8	132	0.36
Rollers	Rollers	2	8	80	0.38
Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes	1	8	97	0.37
Worker Trips		15			
Vendor Trips		0			
Architectural Coating					
Air Compressors	Air Compressors	1	6	78	0.48
Worker Trips		12			
Vendor Trips		0			

Demo Haul Trip Calculation

*Conversion factors**

0.046	ton/SF
1.2641662	tons/cy
20	tons
15.820705	CY
0.7910352	CY/ton

Building Demoltion Haul Trips (BSF and Haul Truck (CY) given)

BSF Demo	Tons/SF	Tons	Haul Truck (CY)	Haul Truck (Ton)	Round Trips	Total Trip Ends
56,640	0.046	2605.44	16	20.00	130	261

*CalEEMod User's Guide Version 2011.1, Appendix A

Pavement Volume to Weight Conversion

Component	Total SF of Area[1]	Assumed Thickness (foot)[2]	Debris Volume (cu. ft)	Weight of Crushed Asphalt (lbs/cf)[3]	AC Mass (lbs)	AC Mass (tons)
Asphalt	39,192	0.333	13,064	45	587,880	293.94

[1] Based on construction information provided by the Applicant.

[2] Pavements and Surface Materials. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Conneticut Cooperative Extension System, 1999.

[3] http://www.reade.com/reade-resources/reference-educational/reade-reference-chart-particle-property-briefings/26-weight-per-cubic-foot-and-specific-gravity-metals-minerals-organics-inorganics-ceraqmics

CalEEMod Inputs (Operational Run - Proposed Project 2019)

Name:	Hilton Garden Inn Airport Hotel
Project Location:	111 E Gish Road, San Jose
County/Air Basin:	San Jose
Climate Zone:	5
Land Use Setting:	Urban
Operational Year:	2019
Utility Company:	Pacific Gas and Electric

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Acreage	Sqft
Hotel	Recreation	Hotel	150	Room	0.92	91460
Hardscape	Parking	Non-Asphalt	4.26	1000sqft	0.10	4259
Parking	Parking	Parking Lot	51.47	1000sqft	1.18	51472
					2.20	**147,191**

Trip Generations*

	Proposed Project	
ITE Trip Rate	8.17	trips/room
Total Trips	**1,226**	ADT

**Based on ITE Trip Rates*

Solid Waste

Hotel Solid Waste	82.13	**TPY**

**Based on CalEEMod Defaults*

Water Use

Septic Tank	0%
Aerobic	100%
Facultative Lagoons	0%

	Hotel (GPY)
CalEEMod Default Indoor Water Use	3,805,015.50
CalEEMod Default Outdoor Water Use	422,779.50
CalEEMod Default Total Water Use	**4,227,795.00**

**CalEEMod Default water generation rate.*

Water Mitigation

Install Low Flow Bathroom Faucet	32	% Reduction in flow
Install Low Flow Kitchen Faucet	18	% Reduction in flow
Install Low Flow Toilet	20	% Reduction in flow
Install Low Flow Shower	20	% Reduction in flow
Use Water Efficiency Irrigation System	6.1	% Reduction in flow

Energy Mitigation*

2016 Building and Energy Efficiency Standards

Non-Residential Exceed Title 24	5%	Improvement over 2013[1]
Residential Exceed Title 24	28.0%	Improvement over 2013[1]

Sources:
[1] California Energy Commission. 2015a. 2016 Building Energy Efficiency Standards, Adoption Hearing Presentation. http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/ June 10.

CalEEMod Inputs (Operational Run - Existing Project 2017)

Name:	Hilton Garden Inn Airport Hotel
Project Location:	111 E Gish Road, San Jose
County/Air Basin:	San Jose
Climate Zone:	4
Land Use Setting:	Urban
Operational Year:	2019
Utility Company:	Pacific Gas and Electric

	SQFT	Acreage
Total Site Area:	95,832	2.20
Retail	56,640	0.65
Vacancy*	30,291	0.65
Landscaping	3,882	0.09
Hardscape	2,027	0.05
Parking	61,418	1.41

Land Use	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Acreage	Sqft
Retail Shopping Center	Retail	Strip Mall	30.29	1000sqft	0.74	30,291
Hardscape	Parking	Non-Asphalt	2.03	1000sqft	0.05	2,027
Parking	Parking	Parking Lot	61.42	1000sqft	1.41	61,418
					2.20	**93,736**

**Office building is currently at 47% occupancy (Applicant Provided for San Jose)*

Trip Generations

**Based on ITE Trip Rates*

ITE Trip Rate	11.03
ADT*	**334**

**PlaceWorks Trip Generation calcualtion based on ITE Manual 9th edition trip rates*

Solid Waste

Shopping Center Solid Waste	31.80	**TPY**

**Based on CalEEMod Defaults*

Water Use

Septic Tank	0%
Aerobic	100%
Facultative Lagoons	0%

	Shopping Center (GPY)
CalEEMod Default Indoor Water Use	2,243,656.68
CalEEMod Default Outdoor Water Use	1,375,144.41
CalEEMod Default Total Water Use	3,618,801.09

**CalEEMod Default water generation rate.*

Energy Use

**CalEEMod Defaults used with Historical Data Enabled*

Changes to the CalEEMod Defaults - Fleet Mix 2017

					Trips	334								
Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.5967	0.0402	0.188056	0.111125	0.016796	0.004948	0.012194	0.019466	0.002007	0.001626	0.00541	0.000612	0.000841	100%
Trips	199	13	63	37	6	2	4	7	1	1	2	0	0	334
Percent	83%			11%	6%									100%
without buses/MH*	0.596719	0.040200	0.188056	0.111125	0.016796	0.004948	0.012194	0.019466	0	0	0.005410	0.0000000	0	99%
Percent	83%			11%	5%									99%
Adjusted without buses/MH	0.596719	0.040200	0.188056	0.111125	0.018396	0.005419	0.013355	0.021320	0.000000	0.000000	0.005925	0.000000	0.000000	
Percent check	83%			11%	6%									100%
Assumed Mix	97.0%			2.00%	1.00%									100%
adjusted with Assumed	0.696615	0.046930	0.219538	0.020000	0.003145	0.000927	0.002283	0.003645	0.000000	0.000000	0.006917	0.000000	0.000000	100%
Trips	233	16	73	7	1	0	1	1	0	0	2	0	0	334
Check	*324*			*7*	*3*									

**School buses were left in for school use*

Changes to the CalEEMod Defaults - Fleet Mix 2019

Trips 1,226

Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.601	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812	100%
Trips	737	48	229	135	20	6	15	24	3	2	7	1	1	1,226
Percent	83%			11%	6%									100%
without buses/MH*	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0	0	0.005388	0.0000000	0	99%
Percent	83%			11%	5%									99%
Adjusted without buses/MH	0.601004	0.039123	0.186461	0.109772	0.017663	0.005439	0.013420	0.021731	0.000000	0.000000	0.005902	0.000000	0.000000	
Percent check	83%			11%	6%									100%
Assumed Mix	97.0%			2.00%	1.00%									100%
adjusted with Assumed	0.700277	0.045585	0.217260	0.020000	0.003032	0.000934	0.002304	0.003730	0.000000	0.000000	0.006877	0.000000	0.000000	100%
Trips	858	56	266	25	4	1	3	5	0	0	8	0	0	1,226
Check	*1,189*			*25*	*12*									

**School buses were left in for school use*

Criteria Air Pollutant Emissions Summary - Construction

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		0.90	3.14	2.33	0.00	0.09	0.17	0.26	0.03	0.16	0.18

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite		0.85	2.71	2.00	0.00	0.02	0.16	0.19	0.01	0.16	0.16
Total Offsite		0.04	0.43	0.33	0.00	0.07	0.00	0.07	0.02	0.00	0.02

Demolition - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road						0	0	0	0.00E+00	0	0.00E+00
Fugitive Dust		0.0248	0.2436	0.1511	2.40E-04		0.0144	0.0144		0.0134	0.0134
Hauling		0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vendor		2.20E-04	5.36E-03	1.49E-03	1.00E-05	2.50E-04	4.00E-05	2.90E-04	7.00E-05	4.00E-05	1.10E-04
Worker		5.20E-04	4.00E-04	4.10E-03	1.00E-05	9.50E-04	1.00E-05	9.60E-04	2.50E-04	1.00E-05	2.60E-04
Total		2.55E-02	2.49E-01	1.57E-01	2.60E-04	1.20E-03	1.45E-02	1.57E-02	3.20E-04	1.35E-02	1.38E-02
TOTAL ONSITE		0.02	0.24	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
TOTAL OFFSITE		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Demolition Haul - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						1.33E-02	0	1.33E-02	2.01E-03	0	2.01E-03
Off-Road		0	0	0	0		0	0		0	0
Hauling		1.40E-03	4.79E-02	9.31E-03	1.20E-04	2.31E-03	1.90E-04	2.50E-03	6.40E-04	1.80E-04	8.20E-04
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0	0	0	0	0	0	0	0	0	0
Total		0.00	0.05	0.01	0.00	0.02	0.00	0.02	0.00	0.00	0.00
TOTAL ONSITE		0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Site Preparation - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						1.02E-03	0	1.02E-03	1.10E-04	0	1.10E-04
Off-Road		2.85E-03	0.0354	0.0191	4.00E-05		1.43E-03	1.43E-03		1.32E-03	1.32E-03
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		3.00E-05	8.00E-04	2.20E-04	0.00E+00	4.00E-05	1.00E-05	4.00E-05	1.00E-05	1.00E-05	2.00E-05
Worker		5.00E-05	4.00E-05	3.80E-04	0.00E+00	9.00E-05	0.00E+00	9.00E-05	2.00E-05	0.00E+00	2.00E-05
Total		2.93E-03	3.62E-02	1.97E-02	4.00E-05	1.15E-03	1.44E-03	2.58E-03	1.40E-04	1.33E-03	1.47E-03
TOTAL ONSITE		0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grading - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						8.40E-03	0	8.40E-03	4.32E-03	0	4.32E-03
Off-Road		6.45E-03	0.0729	0.0311	6.00E-05		3.50E-03	3.50E-03		3.22E-03	3.22E-03
Hauling		0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vendor		7.00E-05	1.61E-03	4.50E-04	0	7.00E-05	1.00E-05	9.00E-05	2.00E-05	1.00E-05	3.00E-05
Worker		1.20E-04	9.00E-05	9.50E-04	0	2.20E-04	0	2.20E-04	6.00E-05	0	6.00E-05
Total		0.00664	0.0746	0.0325	0.00006	0.00869	0.00351	0.01221	0.0044	0.00323	0.00763
TOTAL ONSITE		0.01	0.07	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.01
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Building Construction - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust											
Off-Road		3.20E-01	2.2778	1.729	2.75E-03		1.38E-01	1.38E-01		1.33E-01	1.33E-01
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		1.45E-02	3.54E-01	9.85E-02	0.00073	1.63E-02	2.84E-03	1.91E-02	4.75E-03	2.72E-03	7.47E-03
Worker		2.75E-02	2.11E-02	2.15E-01	0.00055	4.99E-02	0.00036	5.03E-02	1.34E-02	0.00034	1.37E-02
Total		0.36	2.65	2.04	0.00	0.07	0.14	0.21	0.02	0.14	0.15
TOTAL ONSITE		0.32	2.28	1.73	0.00	0.00	0.14	0.14	0.00	0.13	0.13
TOTAL OFFSITE		0.04	0.38	0.31	0.00	0.07	0.00	0.07	0.02	0.00	0.02

Paving - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		7.02E-03	0.0713	0.0599	9.00E-05		4.25E-03	4.25E-03		3.92E-03	3.92E-03
Paving		1.55E-03					0	0		0	0
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		3.00E-04	2.30E-04	2.37E-03	1.00E-05	5.50E-04	0.00E+00	5.50E-04	1.50E-04	0.00E+00	1.50E-04
Total		0.01	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL ONSITE		0.01	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Architectural Coating - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Arch. Coating		0.4876					0	0		0	0
Off-Road		1.49E-03	1.00E-02	9.27E-03	1.00E-05		7.50E-04	7.50E-04		7.50E-04	7.50E-04
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		2.40E-04	1.90E-04	1.89E-03	0.00E+00	4.40E-04	0.00E+00	4.40E-04	1.20E-04	0.00E+00	1.20E-04
Total		0.49	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL ONSITE		0.49	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Criteria Air Pollutant Emissions Summary - Construction

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

Unmigated Run - with Best Control Measures for Fugitive Dust

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	7.12	24.94	18.53	0.04	0.74	1.32	2.06	0.21	1.26	1.46
BAAQMD Threshold	54	54	NA	NA	BMP	82	54	BMP	54	NA
Exceeds Threshold	No	No	NA	NA	NA	No	No	NA	No	NA

FOR CONSTRUCTION RISK ASSESSMENT

Onsite Details

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2018 Onsite	6.76	21.52	15.87	0.03	0.18	1.29	1.47	0.05	1.23	1.28

Offsite Details

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2018 Offsite	0.36	3.43	2.66	0.01	0.56	0.027	0.59	0.15	0.026	0.181

Criteria Air Pollutant Emissions Summary - Construction

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		0.90	3.14	2.33	0.00	0.09	0.10	0.20	0.03	0.10	0.13

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total Onsite		0.85	2.71	2.00	0.00	0.02	0.10	0.12	0.01	0.10	0.10
Total Offsite		0.04	0.43	0.33	0.00	0.07	0.00	0.07	0.02	0.00	0.02

Demolition - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road						0	0	0	0.00E+00	0	0.00E+00
Fugitive Dust		0.0248	0.2436	0.1511	2.40E-04		7.18E-03	7.18E-03		6.71E-03	6.71E-03
Hauling		0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vendor		2.20E-04	5.36E-03	1.49E-03	1.00E-05	2.50E-04	4.00E-05	2.90E-04	7.00E-05	4.00E-05	1.10E-04
Worker		5.20E-04	4.00E-04	4.10E-03	1.00E-05	9.50E-04	1.00E-05	9.60E-04	2.50E-04	1.00E-05	2.60E-04
Total		2.55E-02	2.49E-01	1.57E-01	2.60E-04	1.20E-03	7.23E-03	8.43E-03	3.20E-04	6.76E-03	7.08E-03
TOTAL ONSITE		0.02	0.24	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01
TOTAL OFFSITE		0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Demolition Haul - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						1.33E-02	0	1.33E-02	2.01E-03	0	2.01E-03
Off-Road		0	0	0	0		0	0		0	0
Hauling		1.40E-03	4.79E-02	9.31E-03	1.20E-04	2.31E-03	1.90E-04	2.50E-03	6.40E-04	1.80E-04	8.20E-04
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		0	0	0	0	0	0	0	0	0	0
Total		0.00	0.05	0.01	0.00	0.02	0.00	0.02	0.00	0.00	0.00
TOTAL ONSITE		0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Site Preparation - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						1.02E-03	0	1.02E-03	1.10E-04	0	1.10E-04
Off-Road		2.85E-03	0.0354	0.0191	4.00E-05		7.20E-04	7.20E-04		6.60E-04	6.60E-04
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		3.00E-05	8.00E-04	2.20E-04	0.00E+00	4.00E-05	1.00E-05	4.00E-05	1.00E-05	1.00E-05	2.00E-05
Worker		5.00E-05	4.00E-05	3.80E-04	0.00E+00	9.00E-05	0.00E+00	9.00E-05	2.00E-05	0.00E+00	2.00E-05
Total		2.93E-03	3.62E-02	1.97E-02	4.00E-05	1.15E-03	7.30E-04	1.87E-03	1.40E-04	6.70E-04	8.10E-04
TOTAL ONSITE		0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grading - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						8.40E-03	0	8.40E-03	4.32E-03	0	4.32E-03
Off-Road		6.45E-03	0.0729	0.0311	6.00E-05		1.75E-03	1.75E-03		1.61E-03	1.61E-03
Hauling		0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vendor		7.00E-05	1.61E-03	4.50E-04	0	7.00E-05	1.00E-05	9.00E-05	2.00E-05	1.00E-05	3.00E-05
Worker		1.20E-04	9.00E-05	9.50E-04	0	2.20E-04	0	2.20E-04	6.00E-05	0	6.00E-05
Total		0.00664	0.0746	0.0325	0.00006	0.00869	0.00176	0.01046	0.0044	0.00162	0.00602
TOTAL ONSITE		0.01	0.07	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.01
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Building Construction - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust											
Off-Road		3.20E-01	2.2778	1.729	2.75E-03		8.79E-02	8.79E-02		8.50E-02	8.50E-02
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		1.45E-02	3.54E-01	9.85E-02	7.30E-04	1.63E-02	2.84E-03	1.91E-02	4.75E-03	2.72E-03	7.47E-03
Worker		2.75E-02	2.11E-02	2.15E-01	5.50E-04	4.99E-02	3.60E-04	5.03E-02	1.34E-02	3.40E-04	1.37E-02
Total		0.36	2.65	2.04	0.00	0.07	0.09	0.16	0.02	0.09	0.11
TOTAL ONSITE		0.32	2.28	1.73	0.00	0.00	0.09	0.09	0.00	0.09	0.09
TOTAL OFFSITE		0.04	0.38	0.31	0.00	0.07	0.00	0.07	0.02	0.00	0.02

Paving - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		7.02E-03	0.0713	0.0599	9.00E-05		2.16E-03	2.16E-03		2.00E-03	2.00E-03
Paving		1.55E-03					0	0		0	0
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		3.00E-04	2.30E-04	2.37E-03	1.00E-05	5.50E-04	0.00E+00	5.50E-04	1.50E-04	0.00E+00	1.50E-04
Total		0.01	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL ONSITE		0.01	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Architectural Coating - 2018

Unmitigated Construction

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Arch. Coating		0.4876					0	0		0	0
Off-Road		1.49E-03	1.00E-02	9.27E-03	1.00E-05		7.50E-04	7.50E-04		7.50E-04	7.50E-04
Hauling		0	0	0	0	0	0	0	0	0	0
Vendor		0	0	0	0	0	0	0	0	0	0
Worker		2.40E-04	1.90E-04	1.89E-03	0.00E+00	4.40E-04	0.00E+00	4.40E-04	1.20E-04	0.00E+00	1.20E-04
Total		0.49	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL ONSITE		0.49	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OFFSITE		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Criteria Air Pollutant Emissions Summary - Construction

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

Unmigated Run - with Best Control Measures for Fugitive Dust

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	7.12	24.94	18.53	0.04	0.74	1.32	2.06	0.21	1.26	1.46
BAAQMD Threshold	54	54	NA	NA	BMP	82	54	BMP	54	NA
Exceeds Threshold	No	No	NA	NA	NA	No	No	NA	No	NA

FOR CONSTRUCTION RISK ASSESSMENT

Onsite Details

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2018 Onsite	6.76	21.52	15.87	0.03	0.18	0.80	1.47	0.05	0.77	1.28

Offsite Details

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2018 Offsite	0.36	3.43	2.66	0.01	0.56	0.027	0.59	0.15	0.026	0.181

Greenhouse Gas Emissions Summary

Operation

Existing Uses - 2017 Emission Rates

MT/yr	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area Sources	0	1.68E-03	1.68E-03	0.00E+00	0	1.79E-03	0%
Total Energy Use	0	128.3907	128.3907	5.68E-03	1.24E-03	128.9033	39%
Mobile Sources	0	177.17	177.17	7.08E-03	0	177.35	54%
Waste Generation	6.4551	0	6.4551	0.3815	0	15.9923	5%
Water/Wastewater	0.7938	4.932	5.7258	2.96E-03	1.77E-03	6.3278	2%
Total	7	310	318	0	0	**329**	100%
Total without Waste Generation						**313**	95%

Proposed Project - 2019 Emission Rates

MT/yr	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area Sources	0	3.68E-03	3.68E-03	1.00E-05	0	3.93E-03	0%
Total Energy Use	0	424.8525	424.8525	1.38E-02	5.84E-03	426.9373	34%
Mobile Sources	0	768.0023	768.0023	2.78E-02	0	768.6981	62%
Waste Generation	16.6717	0	16.6717	0.9853	0	41.3033	3%
Water/Wastewater	1.077	5.1959	6.2728	3.94E-03	2.39E-03	7.0838	1%
Total	18	1198	1216	1	0	**1244**	100%
Total without Waste Generation						**1203**	97%

Net Emissions - 2019 Emission Rates

MT/yr	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area Sources	0	0.002	0.002	0.00001	0	0.00214	0%
Total Energy Use	0	296.4618	296.4618	0.00812	0.0046	298.034	33%
Mobile Sources	0	590.8328	590.8328	0.02072	0	591.3516	65%
Waste Generation	10.2166	0	10.2166	0.6038	0	25.311	3%
Water/Wastewater	0.2832	0.2639	0.547	0.00098	0.00062	0.756	0%
Total	10.4997	888	898.0573	0.6337	0.00522	**915**	100%
Total without Waste Generation						**890**	97%
BAAQMD Threshold						**1100**	
Exceeds Threshold						**No**	

Construction

Construction

	MTons Total
2018	408.5322
Total Construction	**408.5322**
30-Year Amortization	**14**
BAAQMD Threshold	**1,100**
Exceeds Threshold	**No**

111 East Gish Road

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.26	1000sqft	0.10	4,260.00	0
Parking Lot	51.47	1000sqft	1.18	51,472.00	0
Hotel	150.00	Room	0.92	91,460.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 58

Climate Zone 4 **Operational Year** 2019

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See CalEEMod Assumptions

Construction Phase -

Off-road Equipment - Haul Phase

Off-road Equipment -

Off-road Equipment -

Trips and VMT - CalEEMod

Demolition -

Architectural Coating - See CalEEMod Assumptions

Vehicle Trips - ITE Trip Rate

Area Coating - CalEEMod Assumptions

Water And Wastewater - 100% Aerobic

Construction Off-road Equipment Mitigation - BAAQMD BMPs

Energy Mitigation -

Water Mitigation -

Fleet Mix - See CalEEMod Assumptions

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	3,344.00	3,088.00
tblAreaCoating	Area_Parking	3344	3088
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	PhaseEndDate	2/7/2019	12/13/2018
tblConstructionPhase	PhaseEndDate	1/10/2019	12/13/2018
tblConstructionPhase	PhaseEndDate	2/23/2018	1/26/2018
tblConstructionPhase	PhaseEndDate	3/8/2018	2/8/2018
tblConstructionPhase	PhaseEndDate	1/24/2019	12/13/2018
tblConstructionPhase	PhaseEndDate	2/28/2018	1/31/2018
tblConstructionPhase	PhaseStartDate	1/25/2019	11/30/2018
tblConstructionPhase	PhaseStartDate	3/9/2018	2/9/2018
tblConstructionPhase	PhaseStartDate	1/27/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	3/1/2018	2/1/2018
tblConstructionPhase	PhaseStartDate	1/11/2019	11/30/2018
tblConstructionPhase	PhaseStartDate	2/24/2018	1/27/2018
tblFleetMix	HHD	0.02	3.7300e-003
tblFleetMix	LDA	0.60	0.70

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	3.0320e-003
tblFleetMix	LHD2	4.9650e-003	9.3400e-004
tblFleetMix	MCY	5.3880e-003	6.8770e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	8.1200e-004	0.00
tblFleetMix	MHD	0.01	2.3040e-003
tblFleetMix	OBUS	2.0450e-003	0.00
tblFleetMix	SBUS	6.1600e-004	0.00
tblFleetMix	UBUS	1.6020e-003	0.00
tblLandUse	BuildingSpaceSquareFeet	51,470.00	51,472.00
tblLandUse	BuildingSpaceSquareFeet	217,800.00	91,460.00
tblLandUse	LandUseSquareFeet	51,470.00	51,472.00
tblLandUse	LandUseSquareFeet	217,800.00	91,460.00
tblLandUse	LotAcreage	5.00	0.92
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	287.00	292.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	SU_TR	5.95	8.17
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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					
2018	0.8971	3.1426	2.3342	4.6300e-003	0.1298	0.1661	0.2959	0.0359	0.1585	0.1944	0.0000	406.8637	406.8637	0.0668	0.0000	408.5325
Maximum	**0.8971**	**3.1426**	**2.3342**	**4.6300e-003**	**0.1298**	**0.1661**	**0.2959**	**0.0359**	**0.1585**	**0.1944**	**0.0000**	**406.8637**	**406.8637**	**0.0668**	**0.0000**	**408.5325**

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					
2018	0.8971	3.1426	2.3342	4.6300e-003	0.0937	0.1661	0.2598	0.0259	0.1585	0.1844	0.0000	406.8633	406.8633	0.0668	0.0000	408.5322
Maximum	**0.8971**	**3.1426**	**2.3342**	**4.6300e-003**	**0.0937**	**0.1661**	**0.2598**	**0.0259**	**0.1585**	**0.1844**	**0.0000**	**406.8633**	**406.8633**	**0.0668**	**0.0000**	**408.5322**

	ROG	NOx	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**	**27.79**	**0.00**	**12.19**	**27.91**	**0.00**	**5.15**	**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	**1-1-2018**	**3-31-2018**	0.8797	0.8797
2	**4-1-2018**	**6-30-2018**	0.8889	0.8889
3	**7-1-2018**	**9-30-2018**	0.8987	0.8987
		Highest	0.8987	0.8987

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4097	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.6800e-003	3.6800e-003	1.0000e-005	0.0000	3.9300e-003
Energy	0.0220	0.1996	0.1676	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	437.4155	437.4155	0.0141	6.0400e-003	439.5691
Mobile	0.3060	0.4666	3.3548	8.4900e-003	0.8549	6.5700e-003	0.8615	0.2273	6.0900e-003	0.2334	0.0000	768.0023	768.0023	0.0278	0.0000	768.6981
Waste						0.0000	0.0000		0.0000	0.0000	16.6717	0.0000	16.6717	0.9853	0.0000	41.3033
Water						0.0000	0.0000		0.0000	0.0000	1.3462	6.4200	7.7663	4.9200e-003	2.9900e-003	8.7797
Total	**0.7377**	**0.6662**	**3.5244**	**9.6900e-003**	**0.8549**	**0.0218**	**0.8766**	**0.2273**	**0.0213**	**0.2486**	**18.0179**	**1,211.8415**	**1,229.8594**	**1.0322**	**9.0300e-003**	**1,258.3541**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4097	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.6800e-003	3.6800e-003	1.0000e-005	0.0000	3.9300e-003
Energy	0.0210	0.1906	0.1601	1.1400e-003		0.0145	0.0145		0.0145	0.0145	0.0000	424.8525	424.8525	0.0138	5.8400e-003	426.9373
Mobile	0.3060	0.4666	3.3548	8.4900e-003	0.8549	6.5700e-003	0.8615	0.2273	6.0900e-003	0.2334	0.0000	768.0023	768.0023	0.0278	0.0000	768.6981
Waste						0.0000	0.0000		0.0000	0.0000	16.6717	0.0000	16.6717	0.9853	0.0000	41.3033
Water						0.0000	0.0000		0.0000	0.0000	1.0770	5.1959	6.2728	3.9400e-003	2.3900e-003	7.0838
Total	**0.7367**	**0.6573**	**3.5169**	**9.6300e-003**	**0.8549**	**0.0211**	**0.8760**	**0.2273**	**0.0206**	**0.2479**	**17.7486**	**1,198.0544**	**1,215.8030**	**1.0309**	**8.2300e-003**	**1,244.0264**

	ROG	**NOx**	**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	**0.13**	**1.34**	**0.21**	**0.62**	**0.00**	**3.13**	**0.08**	**0.00**	**3.20**	**0.27**	**1.49**	**1.14**	**1.14**	**0.13**	**8.86**	**1.14**

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	1/1/2018	1/26/2018	5	20	
2	Demo Haul	Demolition	1/1/2018	1/26/2018	5	20	
3	Site Preparation	Site Preparation	1/27/2018	1/31/2018	5	3	
4	Grading	Grading	2/1/2018	2/8/2018	5	6	
5	Building Construction	Building Construction	2/9/2018	12/13/2018	5	220	
6	Paving	Paving	11/30/2018	12/13/2018	5	10	
7	Architectural Coating	Architectural Coating	11/30/2018	12/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.28

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,190; Non-Residential Outdoor: 45,730; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Demo Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Demo Haul	Rubber Tired Dozers	0	8.00	247	0.40
Demo Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demo Haul	0	0.00	0.00	292.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	62.00	24.00	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	12.00	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

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**0.0000**	**0.0144**	**0.0144**	**0.0000**	**0.0134**	**0.0134**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	5.3600e-003	1.4900e-003	1.0000e-005	2.6000e-004	4.0000e-005	3.1000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.0587	1.0587	5.0000e-005	0.0000	1.0601
Worker	5.2000e-004	4.0000e-004	4.1000e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9407	0.9407	3.0000e-005	0.0000	0.9414
Total	**7.4000e-004**	**5.7600e-003**	**5.5900e-003**	**2.0000e-005**	**1.2900e-003**	**5.0000e-005**	**1.3500e-003**	**3.5000e-004**	**5.0000e-005**	**4.0000e-004**	**0.0000**	**1.9994**	**1.9994**	**8.0000e-005**	**0.0000**	**2.0015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**0.0000**	**0.0144**	**0.0144**	**0.0000**	**0.0134**	**0.0134**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	5.3600e-003	1.4900e-003	1.0000e-005	2.5000e-004	4.0000e-005	2.9000e-004	7.0000e-005	4.0000e-005	1.1000e-004	0.0000	1.0587	1.0587	5.0000e-005	0.0000	1.0601
Worker	5.2000e-004	4.0000e-004	4.1000e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9407	0.9407	3.0000e-005	0.0000	0.9414
Total	**7.4000e-004**	**5.7600e-003**	**5.5900e-003**	**2.0000e-005**	**1.2000e-003**	**5.0000e-005**	**1.2500e-003**	**3.2000e-004**	**5.0000e-005**	**3.7000e-004**	**0.0000**	**1.9994**	**1.9994**	**8.0000e-005**	**0.0000**	**2.0015**

3.3 Demo Haul - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0310	0.0000	0.0310	4.7000e-003	0.0000	4.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0310**	**0.0000**	**0.0310**	**4.7000e-003**	**0.0000**	**4.7000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0479	9.3100e-003	1.2000e-004	2.4700e-003	1.9000e-004	2.6700e-003	6.8000e-004	1.8000e-004	8.6000e-004	0.0000	11.3631	11.3631	5.4000e-004	0.0000	11.3765
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4000e-003**	**0.0479**	**9.3100e-003**	**1.2000e-004**	**2.4700e-003**	**1.9000e-004**	**2.6700e-003**	**6.8000e-004**	**1.8000e-004**	**8.6000e-004**	**0.0000**	**11.3631**	**11.3631**	**5.4000e-004**	**0.0000**	**11.3765**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0133	0.0000	0.0133	2.0100e-003	0.0000	2.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0133**	**0.0000**	**0.0133**	**2.0100e-003**	**0.0000**	**2.0100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0479	9.3100e-003	1.2000e-004	2.3100e-003	1.9000e-004	2.5000e-003	6.4000e-004	1.8000e-004	8.2000e-004	0.0000	11.3631	11.3631	5.4000e-004	0.0000	11.3765
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4000e-003**	**0.0479**	**9.3100e-003**	**1.2000e-004**	**2.3100e-003**	**1.9000e-004**	**2.5000e-003**	**6.4000e-004**	**1.8000e-004**	**8.2000e-004**	**0.0000**	**11.3631**	**11.3631**	**5.4000e-004**	**0.0000**	**11.3765**

3.4 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0354	0.0191	4.0000e-005		1.4300e-003	1.4300e-003		1.3200e-003	1.3200e-003	0.0000	3.3590	3.3590	1.0500e-003	0.0000	3.3851
Total	**2.8500e-003**	**0.0354**	**0.0191**	**4.0000e-005**	**2.3900e-003**	**1.4300e-003**	**3.8200e-003**	**2.6000e-004**	**1.3200e-003**	**1.5800e-003**	**0.0000**	**3.3590**	**3.3590**	**1.0500e-003**	**0.0000**	**3.3851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	8.0000e-004	2.2000e-004	0.0000	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1588	0.1588	1.0000e-005	0.0000	0.1590
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0868	0.0868	0.0000	0.0000	0.0869
Total	**8.0000e-005**	**8.4000e-004**	**6.0000e-004**	**0.0000**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2456**	**0.2456**	**1.0000e-005**	**0.0000**	**0.2459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.0200e-003	0.0000	1.0200e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0354	0.0191	4.0000e-005		1.4300e-003	1.4300e-003		1.3200e-003	1.3200e-003	0.0000	3.3590	3.3590	1.0500e-003	0.0000	3.3851
Total	**2.8500e-003**	**0.0354**	**0.0191**	**4.0000e-005**	**1.0200e-003**	**1.4300e-003**	**2.4500e-003**	**1.1000e-004**	**1.3200e-003**	**1.4300e-003**	**0.0000**	**3.3590**	**3.3590**	**1.0500e-003**	**0.0000**	**3.3851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	8.0000e-004	2.2000e-004	0.0000	4.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1588	0.1588	1.0000e-005	0.0000	0.1590
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0868	0.0868	0.0000	0.0000	0.0869
Total	**8.0000e-005**	**8.4000e-004**	**6.0000e-004**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.2456**	**0.2456**	**1.0000e-005**	**0.0000**	**0.2459**

3.5 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0729	0.0311	6.0000e-005		3.5000e-003	3.5000e-003		3.2200e-003	3.2200e-003	0.0000	5.6539	5.6539	1.7600e-003	0.0000	5.6979
Total	**6.4500e-003**	**0.0729**	**0.0311**	**6.0000e-005**	**0.0197**	**3.5000e-003**	**0.0232**	**0.0101**	**3.2200e-003**	**0.0133**	**0.0000**	**5.6539**	**5.6539**	**1.7600e-003**	**0.0000**	**5.6979**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.6100e-003	4.5000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3176	0.3176	2.0000e-005	0.0000	0.3180
Worker	1.2000e-004	9.0000e-005	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2171	0.2171	1.0000e-005	0.0000	0.2172
Total	**1.9000e-004**	**1.7000e-003**	**1.4000e-003**	**0.0000**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**8.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**0.5347**	**0.5347**	**3.0000e-005**	**0.0000**	**0.5353**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.4000e-003	0.0000	8.4000e-003	4.3200e-003	0.0000	4.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0729	0.0311	6.0000e-005		3.5000e-003	3.5000e-003		3.2200e-003	3.2200e-003	0.0000	5.6539	5.6539	1.7600e-003	0.0000	5.6979
Total	**6.4500e-003**	**0.0729**	**0.0311**	**6.0000e-005**	**8.4000e-003**	**3.5000e-003**	**0.0119**	**4.3200e-003**	**3.2200e-003**	**7.5400e-003**	**0.0000**	**5.6539**	**5.6539**	**1.7600e-003**	**0.0000**	**5.6979**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.6100e-003	4.5000e-004	0.0000	7.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3176	0.3176	2.0000e-005	0.0000	0.3180
Worker	1.2000e-004	9.0000e-005	9.5000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2171	0.2171	1.0000e-005	0.0000	0.2172
Total	**1.9000e-004**	**1.7000e-003**	**1.4000e-003**	**0.0000**	**2.9000e-004**	**1.0000e-005**	**3.1000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.5347**	**0.5347**	**3.0000e-005**	**0.0000**	**0.5353**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3204	2.2778	1.7290	2.7500e-003		0.1383	0.1383		0.1326	0.1326	0.0000	232.4891	232.4891	0.0501	0.0000	233.7412
Total	**0.3204**	**2.2778**	**1.7290**	**2.7500e-003**		**0.1383**	**0.1383**		**0.1326**	**0.1326**	**0.0000**	**232.4891**	**232.4891**	**0.0501**	**0.0000**	**233.7412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.3539	0.0985	7.3000e-004	0.0174	2.8400e-003	0.0202	5.0200e-003	2.7200e-003	7.7400e-003	0.0000	69.8760	69.8760	3.6200e-003	0.0000	69.9666
Worker	0.0275	0.0211	0.2151	5.5000e-004	0.0541	3.6000e-004	0.0545	0.0144	3.4000e-004	0.0147	0.0000	49.3492	49.3492	1.4800e-003	0.0000	49.3863
Total	**0.0419**	**0.3749**	**0.3135**	**1.2800e-003**	**0.0715**	**3.2000e-003**	**0.0747**	**0.0194**	**3.0600e-003**	**0.0225**	**0.0000**	**119.2252**	**119.2252**	**5.1000e-003**	**0.0000**	**119.3529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3204	2.2778	1.7290	2.7500e-003		0.1383	0.1383		0.1326	0.1326	0.0000	232.4888	232.4888	0.0501	0.0000	233.7409
Total	**0.3204**	**2.2778**	**1.7290**	**2.7500e-003**		**0.1383**	**0.1383**		**0.1326**	**0.1326**	**0.0000**	**232.4888**	**232.4888**	**0.0501**	**0.0000**	**233.7409**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.3539	0.0985	7.3000e-004	0.0163	2.8400e-003	0.0191	4.7500e-003	2.7200e-003	7.4700e-003	0.0000	69.8760	69.8760	3.6200e-003	0.0000	69.9666
Worker	0.0275	0.0211	0.2151	5.5000e-004	0.0499	3.6000e-004	0.0503	0.0134	3.4000e-004	0.0137	0.0000	49.3492	49.3492	1.4800e-003	0.0000	49.3863
Total	**0.0419**	**0.3749**	**0.3135**	**1.2800e-003**	**0.0661**	**3.2000e-003**	**0.0694**	**0.0181**	**3.0600e-003**	**0.0212**	**0.0000**	**119.2252**	**119.2252**	**5.1000e-003**	**0.0000**	**119.3529**

3.7 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0200e-003	0.0713	0.0599	9.0000e-005		4.2500e-003	4.2500e-003		3.9200e-003	3.9200e-003	0.0000	8.0478	8.0478	2.4600e-003	0.0000	8.1093
Paving	1.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5700e-003**	**0.0713**	**0.0599**	**9.0000e-005**		**4.2500e-003**	**4.2500e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**8.0478**	**8.0478**	**2.4600e-003**	**0.0000**	**8.1093**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.3700e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5427	0.5427	2.0000e-005	0.0000	0.5431
Total	**3.0000e-004**	**2.3000e-004**	**2.3700e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5427**	**0.5427**	**2.0000e-005**	**0.0000**	**0.5431**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0200e-003	0.0713	0.0599	9.0000e-005		4.2500e-003	4.2500e-003		3.9200e-003	3.9200e-003	0.0000	8.0478	8.0478	2.4600e-003	0.0000	8.1093
Paving	1.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5700e-003**	**0.0713**	**0.0599**	**9.0000e-005**		**4.2500e-003**	**4.2500e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**8.0478**	**8.0478**	**2.4600e-003**	**0.0000**	**8.1093**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.3700e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5427	0.5427	2.0000e-005	0.0000	0.5431
Total	**3.0000e-004**	**2.3000e-004**	**2.3700e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5427**	**0.5427**	**2.0000e-005**	**0.0000**	**0.5431**

3.8 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4876					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.4891**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.9000e-004	1.8900e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4342	0.4342	1.0000e-005	0.0000	0.4345
Total	**2.4000e-004**	**1.9000e-004**	**1.8900e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4342**	**0.4342**	**1.0000e-005**	**0.0000**	**0.4345**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4876					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.4891**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.9000e-004	1.8900e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4342	0.4342	1.0000e-005	0.0000	0.4345
Total	**2.4000e-004**	**1.9000e-004**	**1.8900e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4342**	**0.4342**	**1.0000e-005**	**0.0000**	**0.4345**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3060	0.4666	3.3548	8.4900e-003	0.8549	6.5700e-003	0.8615	0.2273	6.0900e-003	0.2334	0.0000	768.0023	768.0023	0.0278	0.0000	768.6981
Unmitigated	0.3060	0.4666	3.3548	8.4900e-003	0.8549	6.5700e-003	0.8615	0.2273	6.0900e-003	0.2334	0.0000	768.0023	768.0023	0.0278	0.0000	768.6981

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,225.50	1,225.50	1225.50	2,328,365	2,328,365
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,225.50	1,225.50	1,225.50	2,328,365	2,328,365

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812
Parking Lot	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812
Hotel	0.700277	0.045585	0.217260	0.020000	0.003032	0.000934	0.002304	0.003730	0.000000	0.000000	0.006877	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	217.3173	217.3173	9.8300e-003	2.0300e-003	218.1688
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	220.1776	220.1776	9.9600e-003	2.0600e-003	221.0403
NaturalGas Mitigated	0.0210	0.1906	0.1601	1.1400e-003		0.0145	0.0145		0.0145	0.0145	0.0000	207.5352	207.5352	3.9800e-003	3.8000e-003	208.7684
NaturalGas Unmitigated	0.0220	0.1996	0.1676	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.2379	217.2379	4.1600e-003	3.9800e-003	218.5288

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					
Hotel	4.07088e+006	0.0220	0.1996	0.1676	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.2379	217.2379	4.1600e-003	3.9800e-003	218.5288
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0220**	**0.1996**	**0.1676**	**1.2000e-003**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**0.0000**	**217.2379**	**217.2379**	**4.1600e-003**	**3.9800e-003**	**218.5288**

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					
Hotel	3.88906e+006	0.0210	0.1906	0.1601	1.1400e-003		0.0145	0.0145		0.0145	0.0145	0.0000	207.5352	207.5352	3.9800e-003	3.8000e-003	208.7684
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0210**	**0.1906**	**0.1601**	**1.1400e-003**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**207.5352**	**207.5352**	**3.9800e-003**	**3.8000e-003**	**208.7684**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	711559	207.0006	9.3600e-003	1.9400e-003	207.8117
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	45295.4	13.1769	6.0000e-004	1.2000e-004	13.2286
Total		**220.1776**	**9.9600e-003**	**2.0600e-003**	**221.0403**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	701727	204.1404	9.2300e-003	1.9100e-003	204.9403
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	45295.4	13.1769	6.0000e-004	1.2000e-004	13.2286
Total		**217.3173**	**9.8300e-003**	**2.0300e-003**	**218.1688**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.4097	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.6800e-003	3.6800e-003	1.0000e-005	0.0000	3.9300e-003
Unmitigated	0.4097	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.6800e-003	3.6800e-003	1.0000e-005	0.0000	3.9300e-003

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.0488					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3608					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.6800e-003	3.6800e-003	1.0000e-005	0.0000	3.9300e-003
Total	**0.4097**	**2.0000e-005**	**1.9100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.6800e-003**	**3.6800e-003**	**1.0000e-005**	**0.0000**	**3.9300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0488					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3608					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.6800e-003	3.6800e-003	1.0000e-005	0.0000	3.9300e-003
Total	**0.4097**	**2.0000e-005**	**1.9100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.6800e-003**	**3.6800e-003**	**1.0000e-005**	**0.0000**	**3.9300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.2728	3.9400e-003	2.3900e-003	7.0838
Unmitigated	7.7663	4.9200e-003	2.9900e-003	8.7797

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.80502 / 0.422779	7.7663	4.9200e-003	2.9900e-003	8.7797
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**7.7663**	**4.9200e-003**	**2.9900e-003**	**8.7797**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.04401 / 0.39699	6.2728	3.9400e-003	2.3900e-003	7.0838
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.2728**	**3.9400e-003**	**2.3900e-003**	**7.0838**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.6717	0.9853	0.0000	41.3033
Unmitigated	16.6717	0.9853	0.0000	41.3033

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	82.13	16.6717	0.9853	0.0000	41.3033
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**16.6717**	**0.9853**	**0.0000**	**41.3033**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	82.13	16.6717	0.9853	0.0000	41.3033
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**16.6717**	**0.9853**	**0.0000**	**41.3033**

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

111 East Gish Road
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.26	1000sqft	0.10	4,260.00	0
Parking Lot	51.47	1000sqft	1.18	51,472.00	0
Hotel	150.00	Room	0.92	91,460.00	0

1.2 Other Project Characteristics

Urbanization Urban | **Wind Speed (m/s)** 2.2 | **Precipitation Freq (Days)** 58

Climate Zone 4 | **Operational Year** 2019

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 | **CH4 Intensity (lb/MWhr)** 0.029 | **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See CalEEMod Assumptions

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Haul Phase

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - CalEEMod

Demolition -

Architectural Coating - See CalEEMod Assumptions

Vehicle Trips - ITE Trip Rate

Area Coating - CalEEMod Assumptions

Water And Wastewater - 100% Aerobic

Construction Off-road Equipment Mitigation - BAAQMD BMPs

Energy Mitigation -

Water Mitigation -

Fleet Mix - See CalEEMod Assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	3,344.00	3,088.00
tblAreaCoating	Area_Parking	3344	3088
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	DPF	No Change	Level 2
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstructionPhase	PhaseEndDate	2/7/2019	12/13/2018
tblConstructionPhase	PhaseEndDate	1/10/2019	12/13/2018
tblConstructionPhase	PhaseEndDate	2/23/2018	1/26/2018
tblConstructionPhase	PhaseEndDate	3/8/2018	2/8/2018
tblConstructionPhase	PhaseEndDate	1/24/2019	12/13/2018
tblConstructionPhase	PhaseEndDate	2/28/2018	1/31/2018
tblConstructionPhase	PhaseStartDate	1/25/2019	11/30/2018
tblConstructionPhase	PhaseStartDate	3/9/2018	2/9/2018
tblConstructionPhase	PhaseStartDate	1/27/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	3/1/2018	2/1/2018
tblConstructionPhase	PhaseStartDate	1/11/2019	11/30/2018
tblConstructionPhase	PhaseStartDate	2/24/2018	1/27/2018
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Hotel
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Hotel	Parking Lot
tblFleetMix	HHD	0.02	3.7300e-003
tblFleetMix	LDA	0.60	0.70
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	3.0320e-003
tblFleetMix	LHD2	4.9650e-003	9.3400e-004

tblFleetMix	MCY	5.3880e-003	6.8770e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	8.1200e-004	0.00
tblFleetMix	MHD	0.01	2.3040e-003
tblFleetMix	OBUS	2.0450e-003	0.00
tblFleetMix	SBUS	6.1600e-004	0.00
tblFleetMix	UBUS	1.6020e-003	0.00
tblLandUse	BuildingSpaceSquareFeet	51,470.00	51,472.00
tblLandUse	BuildingSpaceSquareFeet	217,800.00	91,460.00
tblLandUse	LandUseSquareFeet	51,470.00	51,472.00
tblLandUse	LandUseSquareFeet	217,800.00	91,460.00
tblLandUse	LotAcreage	5.00	0.92
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	287.00	292.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	8.19	8.17
tblVehicleTrips	SU_TR	5.95	8.17
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

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					
2018	0.8971	3.1426	2.3342	4.6300e-003	0.1298	0.1661	0.2959	0.0359	0.1585	0.1944	0.0000	406.8637	406.8637	0.0668	0.0000	408.5325
Maximum	**0.8971**	**3.1426**	**2.3342**	**4.6300e-003**	**0.1298**	**0.1661**	**0.2959**	**0.0359**	**0.1585**	**0.1944**	**0.0000**	**406.8637**	**406.8637**	**0.0668**	**0.0000**	**408.5325**

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					
2018	0.8971	3.1426	2.3342	4.6300e-003	0.0937	0.1039	0.1977	0.0259	0.1001	0.1259	0.0000	406.8633	406.8633	0.0668	0.0000	408.5322
Maximum	**0.8971**	**3.1426**	**2.3342**	**4.6300e-003**	**0.0937**	**0.1039**	**0.1977**	**0.0259**	**0.1001**	**0.1259**	**0.0000**	**406.8633**	**406.8633**	**0.0668**	**0.0000**	**408.5322**

	ROG	**NOx**	**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**	**27.79**	**37.43**	**33.20**	**27.91**	**36.87**	**35.22**	**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	**1-1-2018**	**3-31-2018**	0.8797	0.8797
2	**4-1-2018**	**6-30-2018**	0.8889	0.8889
3	**7-1-2018**	**9-30-2018**	0.8987	0.8987
		Highest	0.8987	0.8987

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	1/1/2018	1/26/2018	5	20	
2	Demo Haul	Demolition	1/1/2018	1/26/2018	5	20	
3	Site Preparation	Site Preparation	1/27/2018	1/31/2018	5	3	
4	Grading	Grading	2/1/2018	2/8/2018	5	6	
5	Building Construction	Building Construction	2/9/2018	12/13/2018	5	220	
6	Paving	Paving	11/30/2018	12/13/2018	5	10	
7	Architectural Coating	Architectural Coating	11/30/2018	12/13/2018	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.28

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,190; Non-Residential Outdoor: 45,730; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Demo Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Demo Haul	Rubber Tired Dozers	0	8.00	247	0.40
Demo Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demo Haul	0	0.00	0.00	292.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	62.00	24.00	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	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**0.0000**	**0.0144**	**0.0144**	**0.0000**	**0.0134**	**0.0134**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	5.3600e-003	1.4900e-003	1.0000e-005	2.6000e-004	4.0000e-005	3.1000e-004	8.0000e-005	4.0000e-005	1.2000e-004	0.0000	1.0587	1.0587	5.0000e-005	0.0000	1.0601
Worker	5.2000e-004	4.0000e-004	4.1000e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9407	0.9407	3.0000e-005	0.0000	0.9414
Total	**7.4000e-004**	**5.7600e-003**	**5.5900e-003**	**2.0000e-005**	**1.2900e-003**	**5.0000e-005**	**1.3500e-003**	**3.5000e-004**	**5.0000e-005**	**4.0000e-004**	**0.0000**	**1.9994**	**1.9994**	**8.0000e-005**	**0.0000**	**2.0015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0248	0.2436	0.1511	2.4000e-004		7.1800e-003	7.1800e-003		6.7100e-003	6.7100e-003	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**0.0000**	**7.1800e-003**	**7.1800e-003**	**0.0000**	**6.7100e-003**	**6.7100e-003**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	5.3600e-003	1.4900e-003	1.0000e-005	2.5000e-004	4.0000e-005	2.9000e-004	7.0000e-005	4.0000e-005	1.1000e-004	0.0000	1.0587	1.0587	5.0000e-005	0.0000	1.0601
Worker	5.2000e-004	4.0000e-004	4.1000e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9407	0.9407	3.0000e-005	0.0000	0.9414
Total	**7.4000e-004**	**5.7600e-003**	**5.5900e-003**	**2.0000e-005**	**1.2000e-003**	**5.0000e-005**	**1.2500e-003**	**3.2000e-004**	**5.0000e-005**	**3.7000e-004**	**0.0000**	**1.9994**	**1.9994**	**8.0000e-005**	**0.0000**	**2.0015**

3.3 Demo Haul - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0310	0.0000	0.0310	4.7000e-003	0.0000	4.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0310**	**0.0000**	**0.0310**	**4.7000e-003**	**0.0000**	**4.7000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0479	9.3100e-003	1.2000e-004	2.4700e-003	1.9000e-004	2.6700e-003	6.8000e-004	1.8000e-004	8.6000e-004	0.0000	11.3631	11.3631	5.4000e-004	0.0000	11.3765
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4000e-003**	**0.0479**	**9.3100e-003**	**1.2000e-004**	**2.4700e-003**	**1.9000e-004**	**2.6700e-003**	**6.8000e-004**	**1.8000e-004**	**8.6000e-004**	**0.0000**	**11.3631**	**11.3631**	**5.4000e-004**	**0.0000**	**11.3765**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0133	0.0000	0.0133	2.0100e-003	0.0000	2.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0133**	**0.0000**	**0.0133**	**2.0100e-003**	**0.0000**	**2.0100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0479	9.3100e-003	1.2000e-004	2.3100e-003	1.9000e-004	2.5000e-003	6.4000e-004	1.8000e-004	8.2000e-004	0.0000	11.3631	11.3631	5.4000e-004	0.0000	11.3765
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4000e-003**	**0.0479**	**9.3100e-003**	**1.2000e-004**	**2.3100e-003**	**1.9000e-004**	**2.5000e-003**	**6.4000e-004**	**1.8000e-004**	**8.2000e-004**	**0.0000**	**11.3631**	**11.3631**	**5.4000e-004**	**0.0000**	**11.3765**

3.4 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0354	0.0191	4.0000e-005		1.4300e-003	1.4300e-003		1.3200e-003	1.3200e-003	0.0000	3.3590	3.3590	1.0500e-003	0.0000	3.3851
Total	**2.8500e-003**	**0.0354**	**0.0191**	**4.0000e-005**	**2.3900e-003**	**1.4300e-003**	**3.8200e-003**	**2.6000e-004**	**1.3200e-003**	**1.5800e-003**	**0.0000**	**3.3590**	**3.3590**	**1.0500e-003**	**0.0000**	**3.3851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	8.0000e-004	2.2000e-004	0.0000	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1588	0.1588	1.0000e-005	0.0000	0.1590
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0868	0.0868	0.0000	0.0000	0.0869
Total	**8.0000e-005**	**8.4000e-004**	**6.0000e-004**	**0.0000**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**0.2456**	**0.2456**	**1.0000e-005**	**0.0000**	**0.2459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.0200e-003	0.0000	1.0200e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e-003	0.0354	0.0191	4.0000e-005		7.2000e-004	7.2000e-004		6.6000e-004	6.6000e-004	0.0000	3.3590	3.3590	1.0500e-003	0.0000	3.3851
Total	**2.8500e-003**	**0.0354**	**0.0191**	**4.0000e-005**	**1.0200e-003**	**7.2000e-004**	**1.7400e-003**	**1.1000e-004**	**6.6000e-004**	**7.7000e-004**	**0.0000**	**3.3590**	**3.3590**	**1.0500e-003**	**0.0000**	**3.3851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	8.0000e-004	2.2000e-004	0.0000	4.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1588	0.1588	1.0000e-005	0.0000	0.1590
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0868	0.0868	0.0000	0.0000	0.0869
Total	**8.0000e-005**	**8.4000e-004**	**6.0000e-004**	**0.0000**	**1.3000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**0.2456**	**0.2456**	**1.0000e-005**	**0.0000**	**0.2459**

3.5 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0729	0.0311	6.0000e-005		3.5000e-003	3.5000e-003		3.2200e-003	3.2200e-003	0.0000	5.6539	5.6539	1.7600e-003	0.0000	5.6979
Total	**6.4500e-003**	**0.0729**	**0.0311**	**6.0000e-005**	**0.0197**	**3.5000e-003**	**0.0232**	**0.0101**	**3.2200e-003**	**0.0133**	**0.0000**	**5.6539**	**5.6539**	**1.7600e-003**	**0.0000**	**5.6979**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.6100e-003	4.5000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3176	0.3176	2.0000e-005	0.0000	0.3180
Worker	1.2000e-004	9.0000e-005	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2171	0.2171	1.0000e-005	0.0000	0.2172
Total	**1.9000e-004**	**1.7000e-003**	**1.4000e-003**	**0.0000**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**8.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**0.5347**	**0.5347**	**3.0000e-005**	**0.0000**	**0.5353**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.4000e-003	0.0000	8.4000e-003	4.3200e-003	0.0000	4.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e-003	0.0729	0.0311	6.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	5.6539	5.6539	1.7600e-003	0.0000	5.6979
Total	**6.4500e-003**	**0.0729**	**0.0311**	**6.0000e-005**	**8.4000e-003**	**1.7500e-003**	**0.0102**	**4.3200e-003**	**1.6100e-003**	**5.9300e-003**	**0.0000**	**5.6539**	**5.6539**	**1.7600e-003**	**0.0000**	**5.6979**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.6100e-003	4.5000e-004	0.0000	7.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3176	0.3176	2.0000e-005	0.0000	0.3180
Worker	1.2000e-004	9.0000e-005	9.5000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2171	0.2171	1.0000e-005	0.0000	0.2172
Total	**1.9000e-004**	**1.7000e-003**	**1.4000e-003**	**0.0000**	**2.9000e-004**	**1.0000e-005**	**3.1000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.5347**	**0.5347**	**3.0000e-005**	**0.0000**	**0.5353**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3204	2.2778	1.7290	2.7500e-003		0.1383	0.1383		0.1326	0.1326	0.0000	232.4891	232.4891	0.0501	0.0000	233.7412
Total	**0.3204**	**2.2778**	**1.7290**	**2.7500e-003**		**0.1383**	**0.1383**		**0.1326**	**0.1326**	**0.0000**	**232.4891**	**232.4891**	**0.0501**	**0.0000**	**233.7412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.3539	0.0985	7.3000e-004	0.0174	2.8400e-003	0.0202	5.0200e-003	2.7200e-003	7.7400e-003	0.0000	69.8760	69.8760	3.6200e-003	0.0000	69.9666
Worker	0.0275	0.0211	0.2151	5.5000e-004	0.0541	3.6000e-004	0.0545	0.0144	3.4000e-004	0.0147	0.0000	49.3492	49.3492	1.4800e-003	0.0000	49.3863
Total	**0.0419**	**0.3749**	**0.3135**	**1.2800e-003**	**0.0715**	**3.2000e-003**	**0.0747**	**0.0194**	**3.0600e-003**	**0.0225**	**0.0000**	**119.2252**	**119.2252**	**5.1000e-003**	**0.0000**	**119.3529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3204	2.2778	1.7290	2.7500e-003		0.0879	0.0879		0.0850	0.0850	0.0000	232.4888	232.4888	0.0501	0.0000	233.7409
Total	**0.3204**	**2.2778**	**1.7290**	**2.7500e-003**		**0.0879**	**0.0879**		**0.0850**	**0.0850**	**0.0000**	**232.4888**	**232.4888**	**0.0501**	**0.0000**	**233.7409**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.3539	0.0985	7.3000e-004	0.0163	2.8400e-003	0.0191	4.7500e-003	2.7200e-003	7.4700e-003	0.0000	69.8760	69.8760	3.6200e-003	0.0000	69.9666
Worker	0.0275	0.0211	0.2151	5.5000e-004	0.0499	3.6000e-004	0.0503	0.0134	3.4000e-004	0.0137	0.0000	49.3492	49.3492	1.4800e-003	0.0000	49.3863
Total	**0.0419**	**0.3749**	**0.3135**	**1.2800e-003**	**0.0661**	**3.2000e-003**	**0.0694**	**0.0181**	**3.0600e-003**	**0.0212**	**0.0000**	**119.2252**	**119.2252**	**5.1000e-003**	**0.0000**	**119.3529**

3.7 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0200e-003	0.0713	0.0599	9.0000e-005		4.2500e-003	4.2500e-003		3.9200e-003	3.9200e-003	0.0000	8.0478	8.0478	2.4600e-003	0.0000	8.1093
Paving	1.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5700e-003**	**0.0713**	**0.0599**	**9.0000e-005**		**4.2500e-003**	**4.2500e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**8.0478**	**8.0478**	**2.4600e-003**	**0.0000**	**8.1093**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.3700e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5427	0.5427	2.0000e-005	0.0000	0.5431
Total	**3.0000e-004**	**2.3000e-004**	**2.3700e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5427**	**0.5427**	**2.0000e-005**	**0.0000**	**0.5431**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0200e-003	0.0713	0.0599	9.0000e-005		2.1600e-003	2.1600e-003		2.0000e-003	2.0000e-003	0.0000	8.0478	8.0478	2.4600e-003	0.0000	8.1093
Paving	1.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5700e-003**	**0.0713**	**0.0599**	**9.0000e-005**		**2.1600e-003**	**2.1600e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**8.0478**	**8.0478**	**2.4600e-003**	**0.0000**	**8.1093**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.3700e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5427	0.5427	2.0000e-005	0.0000	0.5431
Total	**3.0000e-004**	**2.3000e-004**	**2.3700e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5427**	**0.5427**	**2.0000e-005**	**0.0000**	**0.5431**

3.8 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4876					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.4891**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.9000e-004	1.8900e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4342	0.4342	1.0000e-005	0.0000	0.4345
Total	**2.4000e-004**	**1.9000e-004**	**1.8900e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4342**	**0.4342**	**1.0000e-005**	**0.0000**	**0.4345**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4876					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.4891**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.9000e-004	1.8900e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4342	0.4342	1.0000e-005	0.0000	0.4345
Total	**2.4000e-004**	**1.9000e-004**	**1.8900e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4342**	**0.4342**	**1.0000e-005**	**0.0000**	**0.4345**

111 Gish 2019 Existing

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	30.29	1000sqft	0.74	30,291.00	0
Parking Lot	61.42	1000sqft	1.41	61,420.00	0
Other Non-Asphalt Surfaces	2.03	1000sqft	0.05	2,030.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 58

Climate Zone 4 **Operational Year** 2019

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - CalEEMod Assumptions

Vehicle Trips - CalEEMod Assumptions

Fleet Mix - CalEEMod Assumptions

Water And Wastewater - 100% Aerobic

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.02	3.7300e-003
tblFleetMix	LDA	0.60	0.70

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	3.0320e-003
tblFleetMix	LHD2	4.9650e-003	9.3400e-004
tblFleetMix	MCY	5.3880e-003	6.8770e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	8.1200e-004	0.00
tblFleetMix	MHD	0.01	2.3040e-003
tblFleetMix	OBUS	2.0450e-003	0.00
tblFleetMix	SBUS	6.1600e-004	0.00
tblFleetMix	UBUS	1.6020e-003	0.00
tblLandUse	LotAcreage	0.70	0.74
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	42.04	11.03
tblVehicleTrips	SU_TR	20.43	11.03
tblVehicleTrips	WD_TR	44.32	11.03
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1396	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Energy	3.9000e-004	3.5300e-003	2.9700e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	116.0622	116.0622	5.1500e-003	1.1200e-003	116.5247
Mobile	0.0791	0.1115	0.7928	1.9000e-003	0.1889	1.5200e-003	0.1904	0.0502	1.4000e-003	0.0516	0.0000	171.7277	171.7277	6.4700e-003	0.0000	171.8894
Waste						0.0000	0.0000		0.0000	0.0000	6.4551	0.0000	6.4551	0.3815	0.0000	15.9923
Water						0.0000	0.0000		0.0000	0.0000	0.7938	4.9320	5.7258	2.9600e-003	1.7700e-003	6.3278
Total	**0.2191**	**0.1151**	**0.7966**	**1.9200e-003**	**0.1889**	**1.7900e-003**	**0.1907**	**0.0502**	**1.6700e-003**	**0.0519**	**7.2489**	**292.7235**	**299.9724**	**0.3961**	**2.8900e-003**	**310.7360**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1396	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Energy	3.9000e-004	3.5300e-003	2.9700e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	116.0622	116.0622	5.1500e-003	1.1200e-003	116.5247
Mobile	0.0791	0.1115	0.7928	1.9000e-003	0.1889	1.5200e-003	0.1904	0.0502	1.4000e-003	0.0516	0.0000	171.7277	171.7277	6.4700e-003	0.0000	171.8894
Waste						0.0000	0.0000		0.0000	0.0000	6.4551	0.0000	6.4551	0.3815	0.0000	15.9923
Water						0.0000	0.0000		0.0000	0.0000	0.7938	4.9320	5.7258	2.9600e-003	1.7700e-003	6.3278
Total	**0.2191**	**0.1151**	**0.7966**	**1.9200e-003**	**0.1889**	**1.7900e-003**	**0.1907**	**0.0502**	**1.6700e-003**	**0.0519**	**7.2489**	**292.7235**	**299.9724**	**0.3961**	**2.8900e-003**	**310.7360**

	ROG	NOx	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	Architectural Coating	Architectural Coating	8/16/2017	8/15/2017	5	10	
2	Building Construction	Building Construction	8/16/2017	8/15/2017	5	220	
3	Demolition	Demolition	8/16/2017	8/15/2017	5	20	
4	Grading	Grading	8/16/2017	8/15/2017	5	6	
5	Paving	Paving	8/16/2017	8/15/2017	5	10	
6	Site Preparation	Site Preparation	8/16/2017	8/15/2017	5	3	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.46

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,437; Non-Residential Outdoor: 15,146; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	36.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0791	0.1115	0.7928	1.9000e-003	0.1889	1.5200e-003	0.1904	0.0502	1.4000e-003	0.0516	0.0000	171.7277	171.7277	6.4700e-003	0.0000	171.8894
Unmitigated	0.0791	0.1115	0.7928	1.9000e-003	0.1889	1.5200e-003	0.1904	0.0502	1.4000e-003	0.0516	0.0000	171.7277	171.7277	6.4700e-003	0.0000	171.8894

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	334.11	334.11	334.11	514,540	514,540
Total	334.11	334.11	334.11	514,540	514,540

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.700277	0.045585	0.217260	0.020000	0.003032	0.000934	0.002304	0.003730	0.000000	0.000000	0.006877	0.000000	0.000000
Parking Lot	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812
Other Non-Asphalt Surfaces	0.601004	0.039123	0.186461	0.109772	0.016124	0.004965	0.012251	0.019838	0.002045	0.001602	0.005388	0.000616	0.000812

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	112.2150	112.2150	5.0700e-003	1.0500e-003	112.6547
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	112.2150	112.2150	5.0700e-003	1.0500e-003	112.6547
NaturalGas Mitigated	3.9000e-004	3.5300e-003	2.9700e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8471	3.8471	7.0000e-005	7.0000e-005	3.8700
NaturalGas Unmitigated	3.9000e-004	3.5300e-003	2.9700e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8471	3.8471	7.0000e-005	7.0000e-005	3.8700

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	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
	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	72092.6	3.9000e-004	3.5300e-003	2.9700e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8471	3.8471	7.0000e-005	7.0000e-005	3.8700
Total		**3.9000e-004**	**3.5300e-003**	**2.9700e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8471**	**3.8471**	**7.0000e-005**	**7.0000e-005**	**3.8700**

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	72092.6	3.9000e-004	3.5300e-003	2.9700e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8471	3.8471	7.0000e-005	7.0000e-005	3.8700
Total		**3.9000e-004**	**3.5300e-003**	**2.9700e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8471**	**3.8471**	**7.0000e-005**	**7.0000e-005**	**3.8700**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	54049.6	15.7237	7.1000e-004	1.5000e-004	15.7853
Strip Mall	331686	96.4914	4.3600e-003	9.0000e-004	96.8695
Total		**112.2150**	**5.0700e-003**	**1.0500e-003**	**112.6547**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	54049.6	15.7237	7.1000e-004	1.5000e-004	15.7853
Strip Mall	331686	96.4914	4.3600e-003	9.0000e-004	96.8695
Total		**112.2150**	**5.0700e-003**	**1.0500e-003**	**112.6547**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1396	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Unmitigated	0.1396	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Total	**0.1396**	**1.0000e-005**	**8.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.7900e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Total	**0.1396**	**1.0000e-005**	**8.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.7900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.7258	2.9600e-003	1.7700e-003	6.3278
Unmitigated	5.7258	2.9600e-003	1.7700e-003	6.3278

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.24366 / 1.37514	5.7258	2.9600e-003	1.7700e-003	6.3278
Total		**5.7258**	**2.9600e-003**	**1.7700e-003**	**6.3278**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.24366 / 1.37514	5.7258	2.9600e-003	1.7700e-003	6.3278
Total		**5.7258**	**2.9600e-003**	**1.7700e-003**	**6.3278**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.4551	0.3815	0.0000	15.9923
Unmitigated	6.4551	0.3815	0.0000	15.9923

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.8	6.4551	0.3815	0.0000	15.9923
Total		**6.4551**	**0.3815**	**0.0000**	**15.9923**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.8	6.4551	0.3815	0.0000	15.9923
Total		**6.4551**	**0.3815**	**0.0000**	**15.9923**

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

111 Gish 2017 Existing
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.03	1000sqft	0.05	2,030.00	0
Parking Lot	61.42	1000sqft	1.41	61,420.00	0
Strip Mall	30.29	1000sqft	0.74	30,291.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 58

Climate Zone 4 **Operational Year** 2017

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - CalEEMod Assumptions

Vehicle Trips - CalEEMod Assumptions

Energy Use -

Water And Wastewater - 100% Aerobic

Fleet Mix - CalEEMod Assumptions

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.02	3.6450e-003
tblFleetMix	LDA	0.59	0.70
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	3.1450e-003
tblFleetMix	LHD2	4.9300e-003	9.2700e-004
tblFleetMix	MCY	5.4320e-003	6.9170e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	8.7500e-004	0.00
tblFleetMix	MHD	0.01	2.2830e-003
tblFleetMix	OBUS	1.9680e-003	0.00
tblFleetMix	SBUS	6.0900e-004	0.00
tblFleetMix	UBUS	1.6630e-003	0.00
tblLandUse	BuildingSpaceSquareFeet	30,290.00	30,291.00
tblLandUse	LandUseSquareFeet	30,290.00	30,291.00
tblLandUse	LotAcreage	0.70	0.74
tblProjectCharacteristics	OperationalYear	2018	2017
tblVehicleEF	HHD	0.60	0.57
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.20	0.16
tblVehicleEF	HHD	3.37	3.13
tblVehicleEF	HHD	1.16	1.06
tblVehicleEF	HHD	5.15	4.54
tblVehicleEF	HHD	4,458.84	4,586.38
tblVehicleEF	HHD	1,728.38	1,707.21
tblVehicleEF	HHD	15.10	13.51
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	25.65	24.77
tblVehicleEF	HHD	5.78	5.20

tblVehicleEF	HHD	19.49	19.50
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.2600e-004	2.7200e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8080e-003	8.8110e-003
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.0200e-004	2.5600e-004
tblVehicleEF	HHD	2.2100e-004	1.7000e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.88	0.81
tblVehicleEF	HHD	1.1800e-004	9.7000e-005
tblVehicleEF	HHD	0.20	0.17
tblVehicleEF	HHD	1.2770e-003	9.2600e-004
tblVehicleEF	HHD	0.23	0.19
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.3900e-004	2.1200e-004
tblVehicleEF	HHD	2.2100e-004	1.7000e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	1.02	0.93
tblVehicleEF	HHD	1.1800e-004	9.7000e-005
tblVehicleEF	HHD	0.27	0.24
tblVehicleEF	HHD	1.2770e-003	9.2600e-004
tblVehicleEF	HHD	0.25	0.20
tblVehicleEF	HHD	0.57	0.54
tblVehicleEF	HHD	0.06	0.05

tblVehicleEF	HHD	0.18	0.15
tblVehicleEF	HHD	2.48	2.29
tblVehicleEF	HHD	1.16	1.07
tblVehicleEF	HHD	4.84	4.23
tblVehicleEF	HHD	4,717.21	4,854.18
tblVehicleEF	HHD	1,728.38	1,707.21
tblVehicleEF	HHD	15.10	13.51
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	26.46	25.56
tblVehicleEF	HHD	5.56	5.00
tblVehicleEF	HHD	19.46	19.47
tblVehicleEF	HHD	0.05	0.03
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.2600e-004	2.7200e-004
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8080e-003	8.8110e-003
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.0200e-004	2.5600e-004
tblVehicleEF	HHD	5.4800e-004	4.1100e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.84	0.76
tblVehicleEF	HHD	2.9100e-004	2.2800e-004
tblVehicleEF	HHD	0.20	0.17
tblVehicleEF	HHD	1.2660e-003	9.1800e-004
tblVehicleEF	HHD	0.22	0.18
tblVehicleEF	HHD	0.04	0.05
tblVehicleEF	HHD	0.02	0.02

tblVehicleEF	HHD	2.3400e-004	2.0700e-004
tblVehicleEF	HHD	5.4800e-004	4.1100e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.96	0.88
tblVehicleEF	HHD	2.9100e-004	2.2800e-004
tblVehicleEF	HHD	0.27	0.24
tblVehicleEF	HHD	1.2660e-003	9.1800e-004
tblVehicleEF	HHD	0.23	0.19
tblVehicleEF	HHD	0.65	0.62
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.21	0.17
tblVehicleEF	HHD	4.61	4.30
tblVehicleEF	HHD	1.15	1.05
tblVehicleEF	HHD	5.54	4.89
tblVehicleEF	HHD	4,102.04	4,216.56
tblVehicleEF	HHD	1,728.38	1,707.21
tblVehicleEF	HHD	15.10	13.51
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	24.54	23.69
tblVehicleEF	HHD	5.87	5.28
tblVehicleEF	HHD	19.51	19.52
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.2600e-004	2.7200e-004
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8080e-003	8.8110e-003
tblVehicleEF	HHD	0.04	0.03

tblVehicleEF	HHD	4.0200e-004	2.5600e-004
tblVehicleEF	HHD	1.0300e-004	8.2000e-005
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.95	0.87
tblVehicleEF	HHD	5.4000e-005	4.6000e-005
tblVehicleEF	HHD	0.20	0.16
tblVehicleEF	HHD	1.3940e-003	1.0130e-003
tblVehicleEF	HHD	0.25	0.20
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.4600e-004	2.1800e-004
tblVehicleEF	HHD	1.0300e-004	8.2000e-005
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	1.09	1.00
tblVehicleEF	HHD	5.4000e-005	4.6000e-005
tblVehicleEF	HHD	0.27	0.23
tblVehicleEF	HHD	1.3940e-003	1.0130e-003
tblVehicleEF	HHD	0.27	0.22
tblVehicleEF	LDA	6.5750e-003	5.7750e-003
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.84	0.74
tblVehicleEF	LDA	2.21	1.93
tblVehicleEF	LDA	294.41	285.13
tblVehicleEF	LDA	66.96	65.28
tblVehicleEF	LDA	0.59	0.60
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	1.7330e-003	1.7310e-003
tblVehicleEF	LDA	2.3820e-003	2.3260e-003
tblVehicleEF	LDA	1.5990e-003	1.5970e-003

tblVehicleEF	LDA	2.1920e-003	2.1400e-003
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.15	0.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	2.9510e-003	2.8570e-003
tblVehicleEF	LDA	7.0800e-004	6.8600e-004
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.15	0.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.18	0.15
tblVehicleEF	LDA	7.2880e-003	6.4150e-003
tblVehicleEF	LDA	0.01	8.3900e-003
tblVehicleEF	LDA	0.98	0.87
tblVehicleEF	LDA	1.76	1.53
tblVehicleEF	LDA	317.48	307.48
tblVehicleEF	LDA	66.96	65.28
tblVehicleEF	LDA	0.59	0.60
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.14	0.12
tblVehicleEF	LDA	1.7330e-003	1.7310e-003
tblVehicleEF	LDA	2.3820e-003	2.3260e-003
tblVehicleEF	LDA	1.5990e-003	1.5970e-003
tblVehicleEF	LDA	2.1920e-003	2.1400e-003
tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.18	0.16

tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.14	0.11
tblVehicleEF	LDA	3.1840e-003	3.0820e-003
tblVehicleEF	LDA	7.0000e-004	6.7900e-004
tblVehicleEF	LDA	0.12	0.11
tblVehicleEF	LDA	0.18	0.16
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.15	0.12
tblVehicleEF	LDA	6.4320e-003	5.6410e-003
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.83	0.73
tblVehicleEF	LDA	2.58	2.25
tblVehicleEF	LDA	290.60	281.44
tblVehicleEF	LDA	66.96	65.28
tblVehicleEF	LDA	0.59	0.60
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.17	0.14
tblVehicleEF	LDA	1.7330e-003	1.7310e-003
tblVehicleEF	LDA	2.3820e-003	2.3260e-003
tblVehicleEF	LDA	1.5990e-003	1.5970e-003
tblVehicleEF	LDA	2.1920e-003	2.1400e-003
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.17	0.15
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06

tblVehicleEF	LDA	0.19	0.16
tblVehicleEF	LDA	2.9130e-003	2.8200e-003
tblVehicleEF	LDA	7.1500e-004	6.9200e-004
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.17	0.15
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.20	0.17
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	2.09	1.78
tblVehicleEF	LDT1	4.68	4.14
tblVehicleEF	LDT1	347.02	339.12
tblVehicleEF	LDT1	78.82	77.26
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.21	0.18
tblVehicleEF	LDT1	0.27	0.24
tblVehicleEF	LDT1	3.0990e-003	2.8490e-003
tblVehicleEF	LDT1	4.0910e-003	3.7510e-003
tblVehicleEF	LDT1	2.8610e-003	2.6270e-003
tblVehicleEF	LDT1	3.7730e-003	3.4540e-003
tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.33	0.31
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.06	0.04
tblVehicleEF	LDT1	0.23	0.21
tblVehicleEF	LDT1	0.35	0.30
tblVehicleEF	LDT1	3.4990e-003	3.4150e-003
tblVehicleEF	LDT1	8.7200e-004	8.4600e-004

tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.33	0.31
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.08	0.06
tblVehicleEF	LDT1	0.23	0.21
tblVehicleEF	LDT1	0.38	0.33
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.35	2.03
tblVehicleEF	LDT1	3.69	3.26
tblVehicleEF	LDT1	372.53	364.20
tblVehicleEF	LDT1	78.82	77.26
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.19	0.16
tblVehicleEF	LDT1	0.24	0.21
tblVehicleEF	LDT1	3.0990e-003	2.8490e-003
tblVehicleEF	LDT1	4.0910e-003	3.7510e-003
tblVehicleEF	LDT1	2.8610e-003	2.6270e-003
tblVehicleEF	LDT1	3.7730e-003	3.4540e-003
tblVehicleEF	LDT1	0.31	0.28
tblVehicleEF	LDT1	0.39	0.35
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.21	0.19
tblVehicleEF	LDT1	0.29	0.25
tblVehicleEF	LDT1	3.7580e-003	3.6690e-003
tblVehicleEF	LDT1	8.5400e-004	8.3000e-004
tblVehicleEF	LDT1	0.31	0.28
tblVehicleEF	LDT1	0.39	0.35
tblVehicleEF	LDT1	0.20	0.19

tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.21	0.19
tblVehicleEF	LDT1	0.31	0.27
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	2.10	1.78
tblVehicleEF	LDT1	5.50	4.87
tblVehicleEF	LDT1	342.82	334.99
tblVehicleEF	LDT1	78.82	77.26
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.23	0.20
tblVehicleEF	LDT1	0.29	0.26
tblVehicleEF	LDT1	3.0990e-003	2.8490e-003
tblVehicleEF	LDT1	4.0910e-003	3.7510e-003
tblVehicleEF	LDT1	2.8610e-003	2.6270e-003
tblVehicleEF	LDT1	3.7730e-003	3.4540e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.37	0.34
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.06	0.04
tblVehicleEF	LDT1	0.28	0.26
tblVehicleEF	LDT1	0.40	0.34
tblVehicleEF	LDT1	3.4570e-003	3.3730e-003
tblVehicleEF	LDT1	8.8600e-004	8.5900e-004
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.37	0.34
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.08	0.06
tblVehicleEF	LDT1	0.28	0.26
tblVehicleEF	LDT1	0.44	0.38

tblVehicleEF	LDT2	9.1210e-003	8.1210e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	1.15	1.02
tblVehicleEF	LDT2	2.79	2.46
tblVehicleEF	LDT2	401.65	391.04
tblVehicleEF	LDT2	91.54	89.51
tblVehicleEF	LDT2	0.19	0.19
tblVehicleEF	LDT2	0.14	0.12
tblVehicleEF	LDT2	0.26	0.22
tblVehicleEF	LDT2	1.5900e-003	1.6030e-003
tblVehicleEF	LDT2	2.2240e-003	2.2020e-003
tblVehicleEF	LDT2	1.4630e-003	1.4750e-003
tblVehicleEF	LDT2	2.0470e-003	2.0260e-003
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.19	0.17
tblVehicleEF	LDT2	4.0280e-003	3.9200e-003
tblVehicleEF	LDT2	9.6400e-004	9.3800e-004
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.21	0.18
tblVehicleEF	LDT2	0.01	8.9800e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	1.33	1.19

tblVehicleEF	LDT2	2.21	1.95
tblVehicleEF	LDT2	432.16	420.78
tblVehicleEF	LDT2	91.54	89.51
tblVehicleEF	LDT2	0.19	0.19
tblVehicleEF	LDT2	0.13	0.11
tblVehicleEF	LDT2	0.23	0.20
tblVehicleEF	LDT2	1.5900e-003	1.6030e-003
tblVehicleEF	LDT2	2.2240e-003	2.2020e-003
tblVehicleEF	LDT2	1.4630e-003	1.4750e-003
tblVehicleEF	LDT2	2.0470e-003	2.0260e-003
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.18	0.17
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.16	0.14
tblVehicleEF	LDT2	4.3350e-003	4.2200e-003
tblVehicleEF	LDT2	9.5400e-004	9.2900e-004
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.18	0.17
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.18	0.15
tblVehicleEF	LDT2	8.9300e-003	7.9420e-003
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	1.13	1.01
tblVehicleEF	LDT2	3.26	2.88
tblVehicleEF	LDT2	396.62	386.14
tblVehicleEF	LDT2	91.54	89.51

tblVehicleEF	LDT2	0.19	0.19
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.28	0.24
tblVehicleEF	LDT2	1.5900e-003	1.6030e-003
tblVehicleEF	LDT2	2.2240e-003	2.2020e-003
tblVehicleEF	LDT2	1.4630e-003	1.4750e-003
tblVehicleEF	LDT2	2.0470e-003	2.0260e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	0.22	0.19
tblVehicleEF	LDT2	3.9780e-003	3.8710e-003
tblVehicleEF	LDT2	9.7200e-004	9.4500e-004
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	0.24	0.21
tblVehicleEF	LHD1	6.8460e-003	6.6480e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	1.66	1.53
tblVehicleEF	LHD1	3.76	3.54
tblVehicleEF	LHD1	8.95	8.97
tblVehicleEF	LHD1	741.26	731.80
tblVehicleEF	LHD1	37.26	36.43

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	1.75	1.64
tblVehicleEF	LHD1	1.24	1.21
tblVehicleEF	LHD1	8.0000e-004	8.2200e-004
tblVehicleEF	LHD1	9.6840e-003	9.7590e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3880e-003	1.3020e-003
tblVehicleEF	LHD1	7.6500e-004	7.8700e-004
tblVehicleEF	LHD1	2.4210e-003	2.4400e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2790e-003	1.1990e-003
tblVehicleEF	LHD1	3.0650e-003	3.0160e-003
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.4220e-003	1.4290e-003
tblVehicleEF	LHD1	0.15	0.15
tblVehicleEF	LHD1	0.34	0.34
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD1	7.3140e-003	7.2140e-003
tblVehicleEF	LHD1	4.4400e-004	4.3100e-004
tblVehicleEF	LHD1	3.0650e-003	3.0160e-003
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.4220e-003	1.4290e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.34	0.34
tblVehicleEF	LHD1	0.42	0.40
tblVehicleEF	LHD1	6.8460e-003	6.6480e-003
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	1.70	1.57
tblVehicleEF	LHD1	3.48	3.27
tblVehicleEF	LHD1	8.95	8.97
tblVehicleEF	LHD1	741.26	731.80
tblVehicleEF	LHD1	37.26	36.43
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	1.67	1.56
tblVehicleEF	LHD1	1.16	1.13
tblVehicleEF	LHD1	8.0000e-004	8.2200e-004
tblVehicleEF	LHD1	9.6840e-003	9.7590e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3880e-003	1.3020e-003
tblVehicleEF	LHD1	7.6500e-004	7.8700e-004
tblVehicleEF	LHD1	2.4210e-003	2.4400e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2790e-003	1.1990e-003
tblVehicleEF	LHD1	7.1060e-003	6.9480e-003
tblVehicleEF	LHD1	0.13	0.13
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.1180e-003	3.0880e-003
tblVehicleEF	LHD1	0.16	0.15
tblVehicleEF	LHD1	0.33	0.33
tblVehicleEF	LHD1	0.36	0.34
tblVehicleEF	LHD1	7.3150e-003	7.2150e-003
tblVehicleEF	LHD1	4.3900e-004	4.2600e-004
tblVehicleEF	LHD1	7.1060e-003	6.9480e-003
tblVehicleEF	LHD1	0.13	0.13

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	3.1180e-003	3.0880e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.33	0.33
tblVehicleEF	LHD1	0.40	0.38
tblVehicleEF	LHD1	6.8460e-003	6.6480e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.16	0.16
tblVehicleEF	LHD1	1.64	1.51
tblVehicleEF	LHD1	4.05	3.80
tblVehicleEF	LHD1	8.95	8.97
tblVehicleEF	LHD1	741.26	731.80
tblVehicleEF	LHD1	37.26	36.43
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	1.79	1.68
tblVehicleEF	LHD1	1.31	1.28
tblVehicleEF	LHD1	8.0000e-004	8.2200e-004
tblVehicleEF	LHD1	9.6840e-003	9.7590e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3880e-003	1.3020e-003
tblVehicleEF	LHD1	7.6500e-004	7.8700e-004
tblVehicleEF	LHD1	2.4210e-003	2.4400e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2790e-003	1.1990e-003
tblVehicleEF	LHD1	1.4920e-003	1.4810e-003
tblVehicleEF	LHD1	0.13	0.13
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.1500e-004	7.2600e-004

tblVehicleEF	LHD1	0.15	0.15
tblVehicleEF	LHD1	0.38	0.38
tblVehicleEF	LHD1	0.41	0.39
tblVehicleEF	LHD1	7.3140e-003	7.2140e-003
tblVehicleEF	LHD1	4.4900e-004	4.3600e-004
tblVehicleEF	LHD1	1.4920e-003	1.4810e-003
tblVehicleEF	LHD1	0.13	0.13
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	7.1500e-004	7.2600e-004
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.38	0.38
tblVehicleEF	LHD1	0.45	0.42
tblVehicleEF	LHD2	4.6350e-003	4.4520e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.95	0.85
tblVehicleEF	LHD2	2.05	1.84
tblVehicleEF	LHD2	14.14	14.14
tblVehicleEF	LHD2	761.15	749.51
tblVehicleEF	LHD2	28.04	27.25
tblVehicleEF	LHD2	4.9300e-003	4.9480e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.68	1.47
tblVehicleEF	LHD2	0.71	0.66
tblVehicleEF	LHD2	1.3140e-003	1.3240e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.9500e-004	6.2600e-004
tblVehicleEF	LHD2	1.2570e-003	1.2660e-003

tblVehicleEF	LHD2	2.6480e-003	2.6570e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.4000e-004	5.7600e-004
tblVehicleEF	LHD2	1.5090e-003	1.3640e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.9100e-004	6.4300e-004
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.15	0.13
tblVehicleEF	LHD2	0.20	0.18
tblVehicleEF	LHD2	1.3900e-004	1.3800e-004
tblVehicleEF	LHD2	7.4210e-003	7.3030e-003
tblVehicleEF	LHD2	3.1900e-004	3.0700e-004
tblVehicleEF	LHD2	1.5090e-003	1.3640e-003
tblVehicleEF	LHD2	0.06	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.9100e-004	6.4300e-004
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.15	0.13
tblVehicleEF	LHD2	0.22	0.19
tblVehicleEF	LHD2	4.6350e-003	4.4520e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.97	0.86
tblVehicleEF	LHD2	1.90	1.71
tblVehicleEF	LHD2	14.14	14.14
tblVehicleEF	LHD2	761.15	749.51
tblVehicleEF	LHD2	28.04	27.25
tblVehicleEF	LHD2	4.9300e-003	4.9480e-003

tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.61	1.41
tblVehicleEF	LHD2	0.67	0.62
tblVehicleEF	LHD2	1.3140e-003	1.3240e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.9500e-004	6.2600e-004
tblVehicleEF	LHD2	1.2570e-003	1.2660e-003
tblVehicleEF	LHD2	2.6480e-003	2.6570e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.4000e-004	5.7600e-004
tblVehicleEF	LHD2	3.5130e-003	3.1510e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5260e-003	1.3990e-003
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.19	0.17
tblVehicleEF	LHD2	1.3900e-004	1.3800e-004
tblVehicleEF	LHD2	7.4220e-003	7.3030e-003
tblVehicleEF	LHD2	3.1600e-004	3.0400e-004
tblVehicleEF	LHD2	3.5130e-003	3.1510e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5260e-003	1.3990e-003
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.20	0.18
tblVehicleEF	LHD2	4.6350e-003	4.4520e-003
tblVehicleEF	LHD2	0.02	0.01

tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.95	0.84
tblVehicleEF	LHD2	2.20	1.97
tblVehicleEF	LHD2	14.14	14.14
tblVehicleEF	LHD2	761.15	749.51
tblVehicleEF	LHD2	28.04	27.25
tblVehicleEF	LHD2	4.9300e-003	4.9480e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.72	1.50
tblVehicleEF	LHD2	0.75	0.70
tblVehicleEF	LHD2	1.3140e-003	1.3240e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.9500e-004	6.2600e-004
tblVehicleEF	LHD2	1.2570e-003	1.2660e-003
tblVehicleEF	LHD2	2.6480e-003	2.6570e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.4000e-004	5.7600e-004
tblVehicleEF	LHD2	7.3400e-004	6.7000e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.4700e-004	3.2800e-004
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.21	0.18
tblVehicleEF	LHD2	1.3900e-004	1.3800e-004
tblVehicleEF	LHD2	7.4210e-003	7.3030e-003
tblVehicleEF	LHD2	3.2100e-004	3.0900e-004
tblVehicleEF	LHD2	7.3400e-004	6.7000e-004

tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.4700e-004	3.2800e-004
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.23	0.20
tblVehicleEF	MCY	0.42	0.43
tblVehicleEF	MCY	0.17	0.17
tblVehicleEF	MCY	21.51	20.86
tblVehicleEF	MCY	10.04	10.07
tblVehicleEF	MCY	165.74	166.66
tblVehicleEF	MCY	47.95	47.37
tblVehicleEF	MCY	5.4320e-003	5.4100e-003
tblVehicleEF	MCY	1.17	1.17
tblVehicleEF	MCY	0.32	0.32
tblVehicleEF	MCY	1.7250e-003	1.7840e-003
tblVehicleEF	MCY	4.4960e-003	4.3770e-003
tblVehicleEF	MCY	1.6230e-003	1.6760e-003
tblVehicleEF	MCY	4.2630e-003	4.1460e-003
tblVehicleEF	MCY	0.92	0.92
tblVehicleEF	MCY	0.78	0.77
tblVehicleEF	MCY	0.51	0.51
tblVehicleEF	MCY	2.38	2.34
tblVehicleEF	MCY	0.70	0.68
tblVehicleEF	MCY	2.31	2.29
tblVehicleEF	MCY	2.0770e-003	2.0750e-003
tblVehicleEF	MCY	7.1200e-004	7.0600e-004
tblVehicleEF	MCY	0.92	0.92
tblVehicleEF	MCY	0.78	0.77
tblVehicleEF	MCY	0.51	0.51

tblVehicleEF	MCY	2.88	2.85
tblVehicleEF	MCY	0.70	0.68
tblVehicleEF	MCY	2.51	2.49
tblVehicleEF	MCY	0.40	0.41
tblVehicleEF	MCY	0.14	0.14
tblVehicleEF	MCY	20.61	20.02
tblVehicleEF	MCY	8.95	8.95
tblVehicleEF	MCY	165.74	166.66
tblVehicleEF	MCY	47.95	47.37
tblVehicleEF	MCY	5.4320e-003	5.4100e-003
tblVehicleEF	MCY	1.03	1.03
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	1.7250e-003	1.7840e-003
tblVehicleEF	MCY	4.4960e-003	4.3770e-003
tblVehicleEF	MCY	1.6230e-003	1.6760e-003
tblVehicleEF	MCY	4.2630e-003	4.1460e-003
tblVehicleEF	MCY	2.37	2.37
tblVehicleEF	MCY	0.99	0.98
tblVehicleEF	MCY	1.39	1.39
tblVehicleEF	MCY	2.27	2.24
tblVehicleEF	MCY	0.66	0.64
tblVehicleEF	MCY	1.92	1.91
tblVehicleEF	MCY	2.0590e-003	2.0580e-003
tblVehicleEF	MCY	6.8200e-004	6.7600e-004
tblVehicleEF	MCY	2.37	2.37
tblVehicleEF	MCY	0.99	0.98
tblVehicleEF	MCY	1.39	1.39
tblVehicleEF	MCY	2.75	2.73
tblVehicleEF	MCY	0.66	0.64
tblVehicleEF	MCY	2.09	2.07

tblVehicleEF	MCY	0.44	0.44
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	23.37	22.62
tblVehicleEF	MCY	11.40	11.44
tblVehicleEF	MCY	165.74	166.66
tblVehicleEF	MCY	47.95	47.37
tblVehicleEF	MCY	5.4320e-003	5.4100e-003
tblVehicleEF	MCY	1.26	1.25
tblVehicleEF	MCY	0.34	0.34
tblVehicleEF	MCY	1.7250e-003	1.7840e-003
tblVehicleEF	MCY	4.4960e-003	4.3770e-003
tblVehicleEF	MCY	1.6230e-003	1.6760e-003
tblVehicleEF	MCY	4.2630e-003	4.1460e-003
tblVehicleEF	MCY	0.40	0.40
tblVehicleEF	MCY	0.95	0.93
tblVehicleEF	MCY	0.19	0.19
tblVehicleEF	MCY	2.50	2.45
tblVehicleEF	MCY	0.82	0.80
tblVehicleEF	MCY	2.69	2.66
tblVehicleEF	MCY	2.1100e-003	2.1060e-003
tblVehicleEF	MCY	7.4600e-004	7.4000e-004
tblVehicleEF	MCY	0.40	0.40
tblVehicleEF	MCY	0.95	0.93
tblVehicleEF	MCY	0.19	0.19
tblVehicleEF	MCY	3.03	2.98
tblVehicleEF	MCY	0.82	0.80
tblVehicleEF	MCY	2.93	2.90
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	1.85	1.71

tblVehicleEF	MDV	4.63	4.26
tblVehicleEF	MDV	521.99	510.74
tblVehicleEF	MDV	116.98	114.92
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.25	0.23
tblVehicleEF	MDV	0.44	0.40
tblVehicleEF	MDV	1.8950e-003	1.9030e-003
tblVehicleEF	MDV	2.7330e-003	2.6930e-003
tblVehicleEF	MDV	1.7490e-003	1.7570e-003
tblVehicleEF	MDV	2.5170e-003	2.4800e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.19	0.19
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.38	0.35
tblVehicleEF	MDV	5.2380e-003	5.1230e-003
tblVehicleEF	MDV	1.2530e-003	1.2250e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.19	0.19
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.42	0.38
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.12	1.97
tblVehicleEF	MDV	3.69	3.39
tblVehicleEF	MDV	560.75	548.67
tblVehicleEF	MDV	116.98	114.92

tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.39	0.36
tblVehicleEF	MDV	1.8950e-003	1.9030e-003
tblVehicleEF	MDV	2.7330e-003	2.6930e-003
tblVehicleEF	MDV	1.7490e-003	1.7570e-003
tblVehicleEF	MDV	2.5170e-003	2.4800e-003
tblVehicleEF	MDV	0.16	0.15
tblVehicleEF	MDV	0.22	0.21
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.32	0.29
tblVehicleEF	MDV	5.6300e-003	5.5060e-003
tblVehicleEF	MDV	1.2360e-003	1.2100e-003
tblVehicleEF	MDV	0.16	0.15
tblVehicleEF	MDV	0.22	0.21
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.08	0.07
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.35	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	1.85	1.71
tblVehicleEF	MDV	5.41	4.98
tblVehicleEF	MDV	515.60	504.49
tblVehicleEF	MDV	116.98	114.92
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.28	0.25
tblVehicleEF	MDV	0.48	0.44

tblVehicleEF	MDV	1.8950e-003	1.9030e-003
tblVehicleEF	MDV	2.7330e-003	2.6930e-003
tblVehicleEF	MDV	1.7490e-003	1.7570e-003
tblVehicleEF	MDV	2.5170e-003	2.4800e-003
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.21	0.20
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.43	0.39
tblVehicleEF	MDV	5.1740e-003	5.0610e-003
tblVehicleEF	MDV	1.2670e-003	1.2380e-003
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.21	0.20
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.47	0.43
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	6.84	5.46
tblVehicleEF	MH	9.98	8.91
tblVehicleEF	MH	1,248.63	1,241.81
tblVehicleEF	MH	72.18	67.91
tblVehicleEF	MH	8.7500e-004	8.4100e-004
tblVehicleEF	MH	1.94	1.81
tblVehicleEF	MH	1.11	1.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	3.0020e-003	2.3970e-003

tblVehicleEF	MH	3.2010e-003	3.2050e-003
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	2.8130e-003	2.2370e-003
tblVehicleEF	MH	1.34	1.24
tblVehicleEF	MH	0.11	0.10
tblVehicleEF	MH	0.44	0.41
tblVehicleEF	MH	0.27	0.22
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.69	0.58
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.0000e-004	8.3700e-004
tblVehicleEF	MH	1.34	1.24
tblVehicleEF	MH	0.11	0.10
tblVehicleEF	MH	0.44	0.41
tblVehicleEF	MH	0.35	0.29
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.75	0.64
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	6.85	5.52
tblVehicleEF	MH	9.22	8.18
tblVehicleEF	MH	1,248.63	1,241.81
tblVehicleEF	MH	72.18	67.91
tblVehicleEF	MH	8.7500e-004	8.4100e-004
tblVehicleEF	MH	1.80	1.69
tblVehicleEF	MH	1.04	0.99
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	3.0020e-003	2.3970e-003
tblVehicleEF	MH	3.2010e-003	3.2050e-003

tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	2.8130e-003	2.2370e-003
tblVehicleEF	MH	3.12	2.87
tblVehicleEF	MH	0.12	0.11
tblVehicleEF	MH	0.98	0.91
tblVehicleEF	MH	0.27	0.22
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.64	0.54
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.8600e-004	8.2400e-004
tblVehicleEF	MH	3.12	2.87
tblVehicleEF	MH	0.12	0.11
tblVehicleEF	MH	0.98	0.91
tblVehicleEF	MH	0.35	0.29
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.70	0.59
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	7.03	5.54
tblVehicleEF	MH	10.90	9.73
tblVehicleEF	MH	1,248.63	1,241.81
tblVehicleEF	MH	72.18	67.91
tblVehicleEF	MH	8.7500e-004	8.4100e-004
tblVehicleEF	MH	2.01	1.88
tblVehicleEF	MH	1.18	1.12
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	3.0020e-003	2.3970e-003
tblVehicleEF	MH	3.2010e-003	3.2050e-003
tblVehicleEF	MH	0.03	0.03

tblVehicleEF	MH	2.8130e-003	2.2370e-003
tblVehicleEF	MH	0.63	0.60
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.23	0.22
tblVehicleEF	MH	0.27	0.22
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.74	0.63
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1600e-004	8.5100e-004
tblVehicleEF	MH	0.63	0.60
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.23	0.22
tblVehicleEF	MH	0.35	0.29
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.81	0.68
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.57	0.54
tblVehicleEF	MHD	1.28	1.09
tblVehicleEF	MHD	10.86	9.73
tblVehicleEF	MHD	143.96	143.73
tblVehicleEF	MHD	1,223.00	1,219.96
tblVehicleEF	MHD	65.62	63.55
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tblVehicleEF	MHD	4.04	3.63
tblVehicleEF	MHD	10.83	10.75
tblVehicleEF	MHD	6.7800e-003	5.7970e-003
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tblVehicleEF	MHD	1.6390e-003	1.3360e-003

tblVehicleEF	MHD	6.4870e-003	5.5460e-003
tblVehicleEF	MHD	0.11	0.09
tblVehicleEF	MHD	1.5210e-003	1.2350e-003
tblVehicleEF	MHD	1.6500e-003	1.4490e-003
tblVehicleEF	MHD	0.07	0.06
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	7.5700e-004	6.7500e-004
tblVehicleEF	MHD	0.28	0.24
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	0.67	0.59
tblVehicleEF	MHD	1.3860e-003	1.3840e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.4800e-004	8.0600e-004
tblVehicleEF	MHD	1.6500e-003	1.4490e-003
tblVehicleEF	MHD	0.07	0.06
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	7.5700e-004	6.7500e-004
tblVehicleEF	MHD	0.32	0.28
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	0.73	0.64
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.40	0.38
tblVehicleEF	MHD	1.29	1.11
tblVehicleEF	MHD	10.02	8.95
tblVehicleEF	MHD	152.66	152.41
tblVehicleEF	MHD	1,223.00	1,219.96
tblVehicleEF	MHD	65.62	63.55
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tblVehicleEF	MHD	10.73	10.66
tblVehicleEF	MHD	5.7160e-003	4.8870e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	1.6390e-003	1.3360e-003
tblVehicleEF	MHD	5.4690e-003	4.6750e-003
tblVehicleEF	MHD	0.11	0.09
tblVehicleEF	MHD	1.5210e-003	1.2350e-003
tblVehicleEF	MHD	3.9820e-003	3.4700e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	1.7930e-003	1.5730e-003
tblVehicleEF	MHD	0.28	0.24
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.63	0.55
tblVehicleEF	MHD	1.4680e-003	1.4660e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.3300e-004	7.9300e-004
tblVehicleEF	MHD	3.9820e-003	3.4700e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	1.7930e-003	1.5730e-003
tblVehicleEF	MHD	0.33	0.28
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.69	0.60
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	0.76	0.72
tblVehicleEF	MHD	1.27	1.08

tblVehicleEF	MHD	11.69	10.46
tblVehicleEF	MHD	132.34	132.12
tblVehicleEF	MHD	1,223.00	1,219.96
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tblVehicleEF	MHD	8.2500e-003	7.0540e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	1.6390e-003	1.3360e-003
tblVehicleEF	MHD	7.8940e-003	6.7480e-003
tblVehicleEF	MHD	0.11	0.09
tblVehicleEF	MHD	1.5210e-003	1.2350e-003
tblVehicleEF	MHD	7.7100e-004	6.8500e-004
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	3.5700e-004	3.2400e-004
tblVehicleEF	MHD	0.28	0.24
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.71	0.62
tblVehicleEF	MHD	1.2770e-003	1.2750e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.6200e-004	8.1900e-004
tblVehicleEF	MHD	7.7100e-004	6.8500e-004
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.5700e-004	3.2400e-004
tblVehicleEF	MHD	0.32	0.28
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.78	0.68

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.04	0.03
tblVehicleEF	OBUS	0.32	0.29
tblVehicleEF	OBUS	1.01	0.85
tblVehicleEF	OBUS	6.98	6.59
tblVehicleEF	OBUS	110.29	108.50
tblVehicleEF	OBUS	1,343.96	1,337.21
tblVehicleEF	OBUS	69.75	69.35
tblVehicleEF	OBUS	1.9680e-003	2.0070e-003
tblVehicleEF	OBUS	0.84	0.74
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tblVehicleEF	OBUS	3.07	2.98
tblVehicleEF	OBUS	1.3260e-003	4.3800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	7.8100e-004	7.9800e-004
tblVehicleEF	OBUS	1.2680e-003	4.1900e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	7.2400e-004	7.3900e-004
tblVehicleEF	OBUS	1.3100e-003	1.2950e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	5.3500e-004	5.3600e-004
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tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.3100e-003	1.2950e-003

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tblVehicleEF	OBUS	5.3500e-004	5.3600e-004
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.30	0.28
tblVehicleEF	OBUS	1.03	0.87
tblVehicleEF	OBUS	6.38	6.02
tblVehicleEF	OBUS	115.84	113.95
tblVehicleEF	OBUS	1,343.96	1,337.21
tblVehicleEF	OBUS	69.75	69.35
tblVehicleEF	OBUS	1.9680e-003	2.0070e-003
tblVehicleEF	OBUS	0.87	0.76
tblVehicleEF	OBUS	2.95	2.59
tblVehicleEF	OBUS	2.99	2.91
tblVehicleEF	OBUS	1.1180e-003	3.6900e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	7.8100e-004	7.9800e-004
tblVehicleEF	OBUS	1.0690e-003	3.5300e-004
tblVehicleEF	OBUS	0.02	0.01
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tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	1.1810e-003	1.1700e-003
tblVehicleEF	OBUS	0.13	0.10

tblVehicleEF	OBUS	0.03	0.03
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tblVehicleEF	OBUS	1.1170e-003	1.0990e-003
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tblVehicleEF	OBUS	2.9960e-003	2.9450e-003
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tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	1.1810e-003	1.1700e-003
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.04	0.04
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tblVehicleEF	OBUS	7.53	7.11
tblVehicleEF	OBUS	102.63	100.98
tblVehicleEF	OBUS	1,343.96	1,337.21
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tblVehicleEF	OBUS	3.14	3.04
tblVehicleEF	OBUS	1.6130e-003	5.3300e-004
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tblVehicleEF	OBUS	7.8100e-004	7.9800e-004
tblVehicleEF	OBUS	1.5430e-003	5.1000e-004
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tblVehicleEF	OBUS	0.04	0.04
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tblVehicleEF	OBUS	9.9100e-004	9.7600e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.3000e-004	8.1900e-004
tblVehicleEF	OBUS	6.8000e-004	6.7600e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	2.9400e-004	2.9700e-004
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tblVehicleEF	SBUS	7.71	7.68
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tblVehicleEF	SBUS	1,100.92	1,092.06
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tblVehicleEF	SBUS	6.13	5.55

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tblVehicleEF	SBUS	9.0200e-004	8.6200e-004
tblVehicleEF	SBUS	0.03	0.01
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tblVehicleEF	SBUS	4.8450e-003	4.3930e-003
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tblVehicleEF	SBUS	0.94	0.93
tblVehicleEF	SBUS	1.6400e-003	1.5570e-003
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tblVehicleEF	SBUS	1.34	1.34
tblVehicleEF	SBUS	1.6400e-003	1.5570e-003
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tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	7.50	7.53

tblVehicleEF	SBUS	1.94	1.62
tblVehicleEF	SBUS	9.09	8.62
tblVehicleEF	SBUS	1,233.69	1,227.50
tblVehicleEF	SBUS	1,100.92	1,092.06
tblVehicleEF	SBUS	49.45	50.72
tblVehicleEF	SBUS	6.0900e-004	6.1200e-004
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tblVehicleEF	SBUS	5.87	5.31
tblVehicleEF	SBUS	13.53	13.25
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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	9.0200e-004	8.6200e-004
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tblVehicleEF	SBUS	2.6740e-003	2.6660e-003
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tblVehicleEF	SBUS	8.3000e-004	7.9300e-004
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tblVehicleEF	SBUS	0.94	0.93
tblVehicleEF	SBUS	3.7340e-003	3.4920e-003
tblVehicleEF	SBUS	0.20	0.15
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.52	0.49
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.5300e-004	6.5800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	1.34	1.33

tblVehicleEF	SBUS	3.7340e-003	3.4920e-003
tblVehicleEF	SBUS	0.25	0.19
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.57	0.54
tblVehicleEF	SBUS	0.88	0.88
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.13	0.12
tblVehicleEF	SBUS	8.00	7.88
tblVehicleEF	SBUS	1.85	1.54
tblVehicleEF	SBUS	15.68	14.87
tblVehicleEF	SBUS	1,101.54	1,097.00
tblVehicleEF	SBUS	1,100.92	1,092.06
tblVehicleEF	SBUS	49.45	50.72
tblVehicleEF	SBUS	6.0900e-004	6.1200e-004
tblVehicleEF	SBUS	11.81	11.22
tblVehicleEF	SBUS	6.25	5.66
tblVehicleEF	SBUS	13.65	13.37
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	9.0200e-004	8.6200e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	2.6740e-003	2.6660e-003
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	8.3000e-004	7.9300e-004
tblVehicleEF	SBUS	2.4140e-003	2.2340e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.95	0.93
tblVehicleEF	SBUS	8.8800e-004	8.5500e-004
tblVehicleEF	SBUS	0.19	0.15

tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.71	0.67
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	7.6300e-004	7.6200e-004
tblVehicleEF	SBUS	2.4140e-003	2.2340e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	1.35	1.34
tblVehicleEF	SBUS	8.8800e-004	8.5500e-004
tblVehicleEF	SBUS	0.24	0.19
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.77	0.73
tblVehicleEF	UBUS	0.28	0.28
tblVehicleEF	UBUS	0.04	0.04
tblVehicleEF	UBUS	6.94	6.47
tblVehicleEF	UBUS	7.66	7.67
tblVehicleEF	UBUS	2,252.43	2,214.91
tblVehicleEF	UBUS	67.80	75.08
tblVehicleEF	UBUS	1.6630e-003	1.6260e-003
tblVehicleEF	UBUS	16.88	15.34
tblVehicleEF	UBUS	17.07	16.55
tblVehicleEF	UBUS	0.68	0.67
tblVehicleEF	UBUS	0.40	0.36
tblVehicleEF	UBUS	7.2500e-004	8.0400e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.38	0.34
tblVehicleEF	UBUS	6.6700e-004	7.3900e-004
tblVehicleEF	UBUS	2.2340e-003	2.2220e-003
tblVehicleEF	UBUS	0.04	0.04
tblVehicleEF	UBUS	9.7400e-004	9.8100e-004

tblVehicleEF	UBUS	1.04	0.95
tblVehicleEF	UBUS	7.5200e-003	7.5600e-003
tblVehicleEF	UBUS	0.48	0.50
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	8.1300e-004	8.8600e-004
tblVehicleEF	UBUS	2.2340e-003	2.2220e-003
tblVehicleEF	UBUS	0.04	0.04
tblVehicleEF	UBUS	9.7400e-004	9.8100e-004
tblVehicleEF	UBUS	1.41	1.31
tblVehicleEF	UBUS	7.5200e-003	7.5600e-003
tblVehicleEF	UBUS	0.53	0.54
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	7.02	6.54
tblVehicleEF	UBUS	6.03	6.04
tblVehicleEF	UBUS	2,252.43	2,214.91
tblVehicleEF	UBUS	67.80	75.08
tblVehicleEF	UBUS	1.6630e-003	1.6260e-003
tblVehicleEF	UBUS	16.21	14.72
tblVehicleEF	UBUS	17.01	16.50
tblVehicleEF	UBUS	0.68	0.67
tblVehicleEF	UBUS	0.40	0.36
tblVehicleEF	UBUS	7.2500e-004	8.0400e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.38	0.34
tblVehicleEF	UBUS	6.6700e-004	7.3900e-004
tblVehicleEF	UBUS	5.4590e-003	5.4140e-003
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	2.4370e-003	2.4390e-003
tblVehicleEF	UBUS	1.05	0.96

tblVehicleEF	UBUS	6.9610e-003	6.9900e-003
tblVehicleEF	UBUS	0.41	0.43
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	7.8500e-004	8.5800e-004
tblVehicleEF	UBUS	5.4590e-003	5.4140e-003
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	2.4370e-003	2.4390e-003
tblVehicleEF	UBUS	1.43	1.33
tblVehicleEF	UBUS	6.9610e-003	6.9900e-003
tblVehicleEF	UBUS	0.45	0.47
tblVehicleEF	UBUS	0.28	0.28
tblVehicleEF	UBUS	0.04	0.04
tblVehicleEF	UBUS	6.89	6.42
tblVehicleEF	UBUS	9.22	9.22
tblVehicleEF	UBUS	2,252.43	2,214.91
tblVehicleEF	UBUS	67.80	75.08
tblVehicleEF	UBUS	1.6630e-003	1.6260e-003
tblVehicleEF	UBUS	17.15	15.58
tblVehicleEF	UBUS	17.11	16.59
tblVehicleEF	UBUS	0.68	0.67
tblVehicleEF	UBUS	0.40	0.36
tblVehicleEF	UBUS	7.2500e-004	8.0400e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.38	0.34
tblVehicleEF	UBUS	6.6700e-004	7.3900e-004
tblVehicleEF	UBUS	1.1470e-003	1.1450e-003
tblVehicleEF	UBUS	0.06	0.05
tblVehicleEF	UBUS	4.6700e-004	4.7600e-004
tblVehicleEF	UBUS	1.03	0.94
tblVehicleEF	UBUS	9.1060e-003	9.1740e-003

tblVehicleEF	UBUS	0.55	0.56
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	8.4000e-004	9.1300e-004
tblVehicleEF	UBUS	1.1470e-003	1.1450e-003
tblVehicleEF	UBUS	0.06	0.05
tblVehicleEF	UBUS	4.6700e-004	4.7600e-004
tblVehicleEF	UBUS	1.40	1.30
tblVehicleEF	UBUS	9.1060e-003	9.1740e-003
tblVehicleEF	UBUS	0.60	0.61
tblVehicleTrips	ST_TR	42.04	11.03
tblVehicleTrips	SU_TR	20.43	11.03
tblVehicleTrips	WD_TR	44.32	11.03
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2015**	**3-31-2015**	1.0473	1.0473
2	**4-1-2015**	**6-30-2015**	1.0728	1.0728
3	**7-1-2015**	**9-30-2015**	1.0846	1.0846
4	**10-1-2015**	**12-31-2015**	1.0383	1.0383
5	**1-1-2016**	**3-31-2016**	0.1588	0.1588
		Highest	1.0846	1.0846

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1396	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Energy	4.8000e-004	4.3400e-003	3.6400e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	128.3907	128.3907	5.6800e-003	1.2400e-003	128.9033
Mobile	0.0878	0.1223	0.8833	1.9600e-003	0.1889	1.5500e-003	0.1905	0.0502	1.4400e-003	0.0517	0.0000	177.1695	177.1695	7.0800e-003	0.0000	177.3465
Waste						0.0000	0.0000		0.0000	0.0000	6.4551	0.0000	6.4551	0.3815	0.0000	15.9923
Water						0.0000	0.0000		0.0000	0.0000	0.7938	4.9320	5.7258	2.9600e-003	1.7700e-003	6.3278
Total	**0.2278**	**0.1266**	**0.8878**	**1.9900e-003**	**0.1889**	**1.8800e-003**	**0.1908**	**0.0502**	**1.7700e-003**	**0.0520**	**7.2489**	**310.4938**	**317.7427**	**0.3972**	**3.0100e-003**	**328.5717**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1396	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Energy	4.8000e-004	4.3400e-003	3.6400e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	128.3907	128.3907	5.6800e-003	1.2400e-003	128.9033
Mobile	0.0878	0.1223	0.8833	1.9600e-003	0.1889	1.5500e-003	0.1905	0.0502	1.4400e-003	0.0517	0.0000	177.1695	177.1695	7.0800e-003	0.0000	177.3465
Waste						0.0000	0.0000		0.0000	0.0000	6.4551	0.0000	6.4551	0.3815	0.0000	15.9923
Water						0.0000	0.0000		0.0000	0.0000	0.7938	4.9320	5.7258	2.9600e-003	1.7700e-003	6.3278
Total	**0.2278**	**0.1266**	**0.8878**	**1.9900e-003**	**0.1889**	**1.8800e-003**	**0.1908**	**0.0502**	**1.7700e-003**	**0.0520**	**7.2489**	**310.4938**	**317.7427**	**0.3972**	**3.0100e-003**	**328.5717**

	ROG	**NOx**	**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	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/2/2015	5	3	
3	Grading	Grading	2/3/2015	2/10/2015	5	6	
4	Building Construction	Building Construction	2/11/2015	12/15/2015	5	220	
5	Paving	Paving	12/16/2015	12/29/2015	5	10	
6	Architectural Coating	Architectural Coating	12/30/2015	1/12/2016	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.46

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,437; Non-Residential Outdoor: 15,146; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	36.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0878	0.1223	0.8833	1.9600e-003	0.1889	1.5500e-003	0.1905	0.0502	1.4400e-003	0.0517	0.0000	177.1695	177.1695	7.0800e-003	0.0000	177.3465
Unmitigated	0.0878	0.1223	0.8833	1.9600e-003	0.1889	1.5500e-003	0.1905	0.0502	1.4400e-003	0.0517	0.0000	177.1695	177.1695	7.0800e-003	0.0000	177.3465

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	334.10	334.10	334.10	514,523	514,523
Total	334.10	334.10	334.10	514,523	514,523

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.591922	0.041427	0.189660	0.112571	0.017564	0.004930	0.012194	0.019187	0.001968	0.001663	0.005432	0.000609	0.000875
Parking Lot	0.591922	0.041427	0.189660	0.112571	0.017564	0.004930	0.012194	0.019187	0.001968	0.001663	0.005432	0.000609	0.000875
Strip Mall	0.696615	0.046930	0.219538	0.020000	0.003145	0.000927	0.002283	0.003645	0.000000	0.000000	0.006917	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	123.6706	123.6706	5.5900e-003	1.1600e-003	124.1552
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	123.6706	123.6706	5.5900e-003	1.1600e-003	124.1552
NaturalGas Mitigated	4.8000e-004	4.3400e-003	3.6400e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7200	4.7200	9.0000e-005	9.0000e-005	4.7481
NaturalGas Unmitigated	4.8000e-004	4.3400e-003	3.6400e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7200	4.7200	9.0000e-005	9.0000e-005	4.7481

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	88449.7	4.8000e-004	4.3400e-003	3.6400e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7200	4.7200	9.0000e-005	9.0000e-005	4.7481
Total		**4.8000e-004**	**4.3400e-003**	**3.6400e-003**	**3.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**4.7200**	**4.7200**	**9.0000e-005**	**9.0000e-005**	**4.7481**

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	88449.7	4.8000e-004	4.3400e-003	3.6400e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7200	4.7200	9.0000e-005	9.0000e-005	4.7481
Total		**4.8000e-004**	**4.3400e-003**	**3.6400e-003**	**3.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**4.7200**	**4.7200**	**9.0000e-005**	**9.0000e-005**	**4.7481**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	54049.6	15.7237	7.1000e-004	1.5000e-004	15.7853
Strip Mall	371065	107.9470	4.8800e-003	1.0100e-003	108.3700
Total		**123.6706**	**5.5900e-003**	**1.1600e-003**	**124.1552**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	54049.6	15.7237	7.1000e-004	1.5000e-004	15.7853
Strip Mall	371065	107.9470	4.8800e-003	1.0100e-003	108.3700
Total		**123.6706**	**5.5900e-003**	**1.1600e-003**	**124.1552**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1396	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Unmitigated	0.1396	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Total	**0.1396**	**1.0000e-005**	**8.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.7900e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Total	**0.1396**	**1.0000e-005**	**8.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.7900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.7258	2.9600e-003	1.7700e-003	6.3278
Unmitigated	5.7258	2.9600e-003	1.7700e-003	6.3278

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.24366 / 1.37514	5.7258	2.9600e-003	1.7700e-003	6.3278
Total		**5.7258**	**2.9600e-003**	**1.7700e-003**	**6.3278**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.24366 / 1.37514	5.7258	2.9600e-003	1.7700e-003	6.3278
Total		**5.7258**	**2.9600e-003**	**1.7700e-003**	**6.3278**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.4551	0.3815	0.0000	15.9923
Unmitigated	6.4551	0.3815	0.0000	15.9923

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.8	6.4551	0.3815	0.0000	15.9923
Total		**6.4551**	**0.3815**	**0.0000**	**15.9923**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.8	6.4551	0.3815	0.0000	15.9923
Total		**6.4551**	**0.3815**	**0.0000**	**15.9923**

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