CoreSite – Santa Clara Data Center SV9

Air Quality and Greenhouse Gas Study

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1 Project Description

1.1 Introduction

This study analyzes of the potential air quality and greenhouse gas (GHG) impacts of the proposed CoreSite – Santa Clara Data Center SV9 Project (herein referred to as "proposed project" or "project") in the City of Santa Clara, California. Rincon Consultants, Inc. (Rincon) prepared this study under contract to Circlepoint in support of environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to analyze the project's air quality and GHG impacts related to both temporary construction activity and long-term operation of the project.

1.2 Project Summary

Project Location

The approximately four-acre project site is in the City of Santa Clara, in the Silicon Valley region of the larger San Francisco Bay Area. The project site is in central Santa Clara, south of US Highway 101 (US-101) and west of the San Tomas Expressway. Figure 1 shows the project site's regional location. Land use designations surrounding the project site consist of Light Industrial and Planned Industrial to the west, south, and east; Low Intensity Office/Research and Development to the north, and High Intensity Office/Research and Development farther to the west.

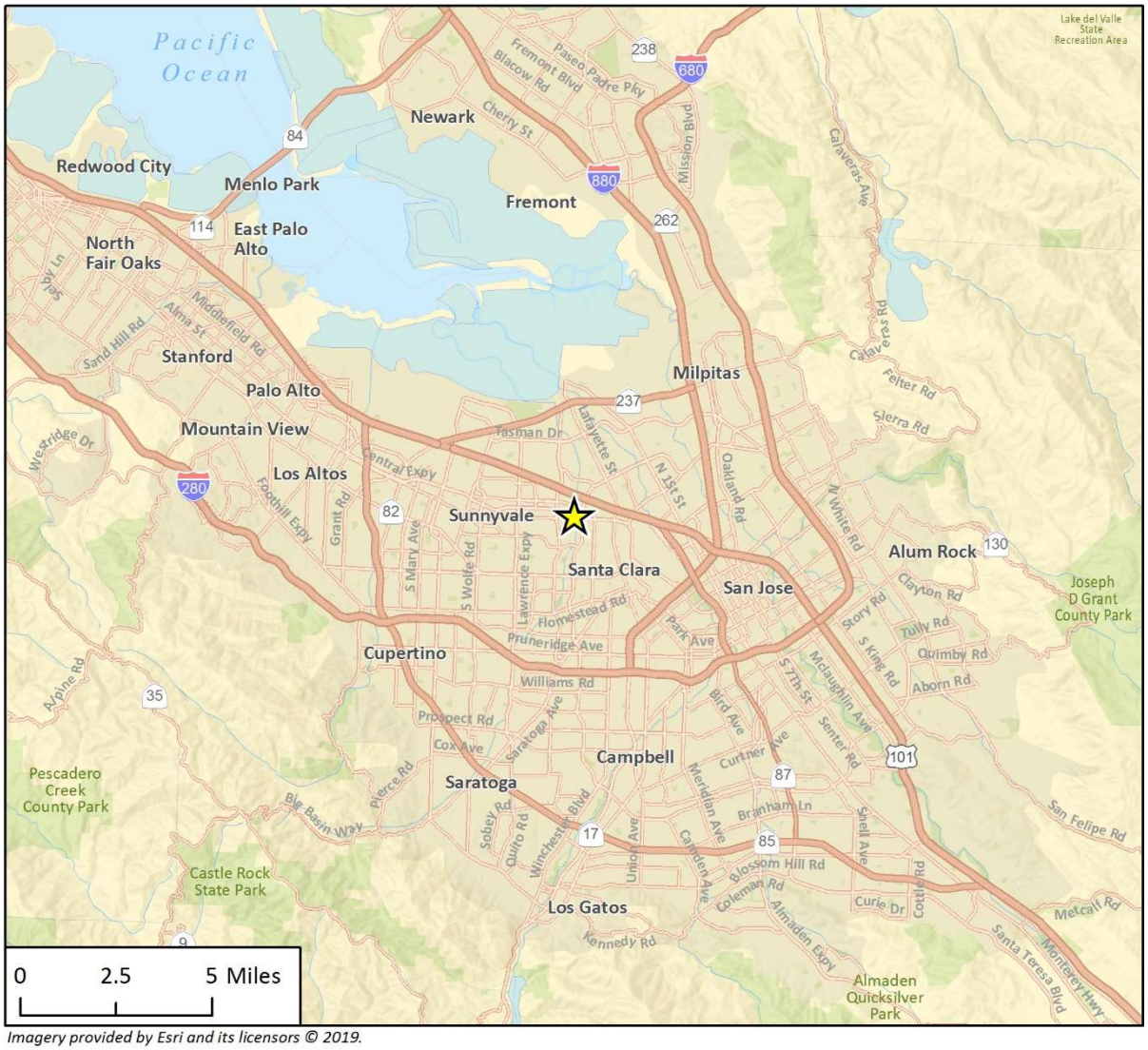
Surrounding development consists mainly of one- to five-story buildings with large surface parking lots. Nearby uses include data centers, research and development buildings, biotech companies and other digital technology-oriented uses. Buildings are generally set back from the street by landscaped areas, fencing and surface parking. Street-side trees occur intermittently throughout the area, often breaking up views of existing buildings from the street.

The project site is bound by Central Expressway to the south, Stender Way to the west, adjacent buildings to the north, and San Tomas Aquino Creek to the east. CoreSite's SV3, SV4, SV5, SV6, SV7, and SV8 data centers are immediately west of the project site along Stender Way and Coronado Drive. Corporate offices for ON Semiconductor (semiconductor supplier) are immediately to the north while San Tomas Aquino Creek and bike trail is to the east. There are various offices for Allegion, Crystal Instruments, AccuImage and Sentek Dynamics further to the east across the creek on Owen Street. Figure 2 shows an aerial view of the project location and immediate surroundings.

Site Conditions

The project site is developed with a single-story light industrial building and parking lot. The building is currently in use by several tenants leasing space. The existing building is set back from the roadway and parcel lines on all sides, and is surrounded on the west, north, and east sides with surface parking. The southern side of the building is set back from Central Expressway with landscaping, trees and a paved pedestrian walkway. The topography of the project site is relatively flat, with slight mounding around landscaping.

Figure 1 Regional Location



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Project Location

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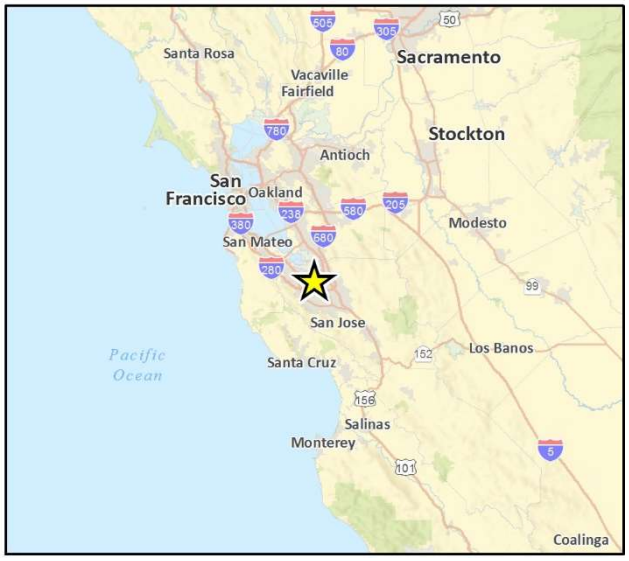

Figure 2 Project Site Location

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Fig 2 Project Location

There are two curb cuts which allow vehicles to enter the site from Stender Way. Primary pedestrian access is also from Stender Way. The site includes utility connections (water, sewer, and electrical) and a Silicon Valley Power (SVP) utility easement that runs along the southern and western edge of the site. Additionally, there is an easement for electrical systems in favor of the City of Santa Clara encompassing the existing transformer and conduit.

Project Description

As part of the project, the existing single-story building would be demolished, and the associated parking lot would be removed. A four-story, 246,660 square-foot data center (SV9) would replace the existing uses on the site. The SV9 data center would be approximately 85 feet in height and would house computer servers and supporting equipment for private clients. Clients would either use the project as a place to relocate their existing servers or to store new servers and expand their server capacity. Sixteen standby, backup diesel generators (backup generators) would be added to the site to provide backup power to the SV9 data center in the event of a power failure.

At full buildout, the SV9 data center would have 48-megawatt (MW) connection to SVP service. The 48 MW service requirement for the SV9 data center would be met by the improvements made to SVP's nearby systems. A substation with capacity to fully serve the data center would be constructed. For the purposes of this analysis, it is assumed that the SV9 data center would operate using 48-MW from opening day. This approach ensures that the maximum GHG emissions are captured.

Site improvements would include the SV9 data center building, a covered loading dock, exterior lighting, gated driveway access, parking lot, and perimeter landscaping (see Figure 3).

Building Design

The SV9 data center would be steel frame construction and would have an exterior aluminum composite panel system with materials chosen to match the texture and finish of adjacent CoreSite data centers. Backup generators for the SV9 data center would be housed at grade in weather enclosures, adjacent to both the SV9 build and new substation (see Figure 3).

Major Equipment

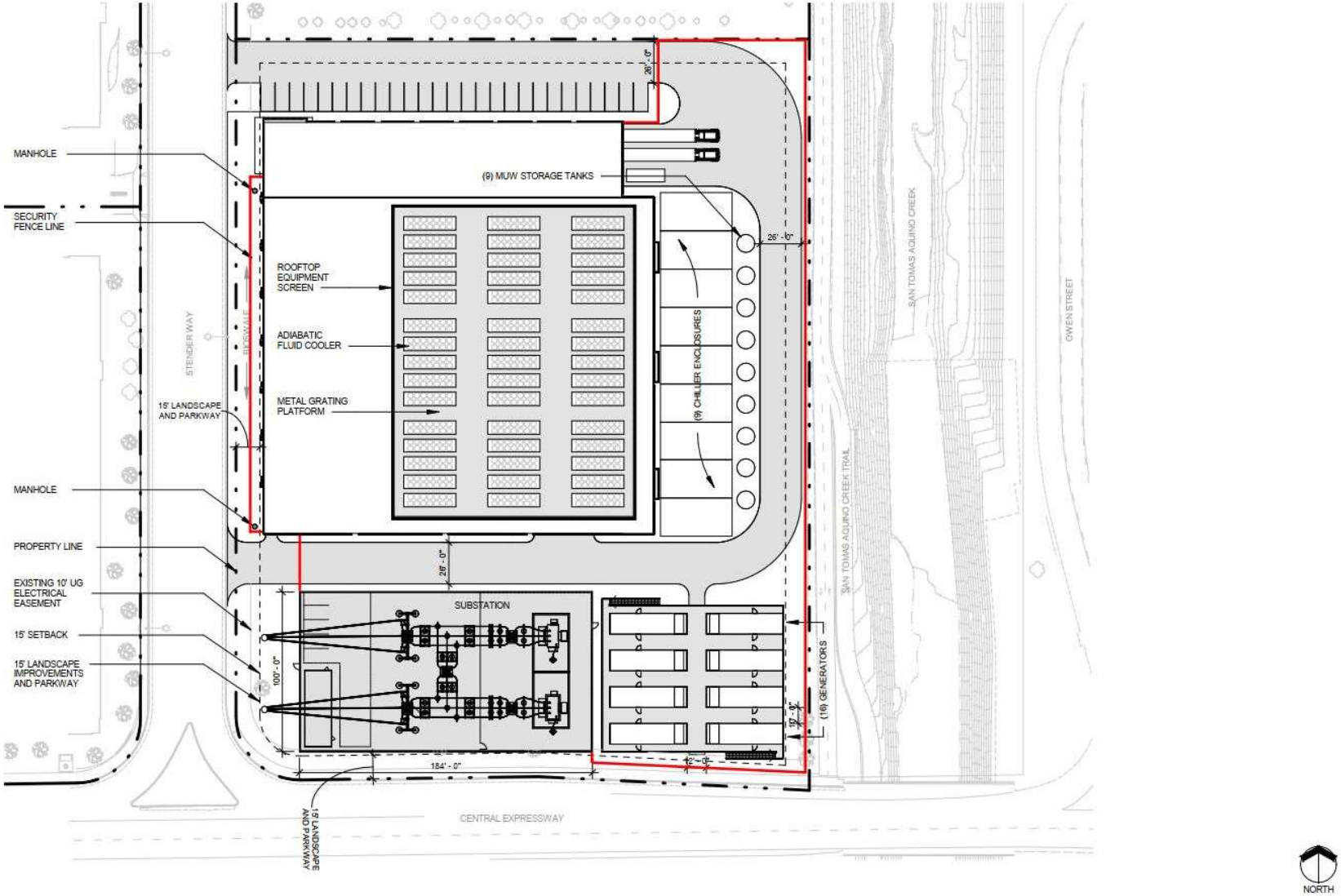
Table 1 provides a list of the major equipment that would be located on site as part of the project.

Table 1 Major Equipment

Equipment	Quantity	Location
3500-kilowatt (kW) backup generators	16 (N+2 configuration)	SV9 yard, adjacent to the data center
Modular Chiller Plant Enclosures	9 (N+1 configuration)	SV9 yard, adjacent to the data center
Adiabatic Fluid Coolers	45	Roof

Source: CoreSite, 2019

Figure 3 Proposed Site Plan



Source: Corgan 2019

Parking and Site Access

The project site currently has a total of 250 parking spaces, including eight accessible spaces consistent with Americans with Disabilities Act (ADA) requirements all of which would be removed as part of the project. Based on the anticipated parking demand for this project, a total of 99 spaces are required, 27 of which would be provided on site. The remaining 72 would be land banked. "Land banking" refers to land reserved for other uses (such as landscaping or outdoor seating) in lieu of parking spaces. The data center parking lot would be constructed along the northern side of the building.

Landscaping and Trees

The project would include landscaping consistent with the surrounding buildings to comply with the City's design requirements. Construction of the SV9 data center and parking lot would require removal of 39 non-protected trees.

As shown in Figure 3, perimeter landscaping surrounding the existing building would be removed and partially replaced. New landscaping is proposed at the ends of the parking bays and replacement landscaping would be installed along the southern and western property boundary. An SVP duct bank currently exists along the south and west side of the property. Coordination with SVP would be necessary to meet SVP standards for access to duct banks. No additional landscaping is proposed.

Project Operation

Backup Energy Supply

A data center relies upon a constant supply of power to allow servers to operate continuously: 24 hours per day, seven days per week. To ensure continuous energy supply, the project would utilize sixteen 3.5-MW backup generators. The generators are designed to start up quickly in the event of a power failure. All generators would be installed in the equipment yard of the SV9 data center building.

Emissions from combustion engines for stationary uses, including diesel generators, are regulated by the U.S. Environmental Protection Agency (EPA). Engine emission standards have been categorized into a tiering system that designates maximum pollutant emissions. All new generators would have EPA Tier II engines and would be outfitted with diesel particulate filters. The generator engines would be fueled using ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million (ppm). All generator engines would be equipped with California Air Resources Board (CARB) Level 3 verified diesel particulate filters (DPFs) with a minimum control efficiency of 85 percent removal of particulate matter.

The generators would have maintenance testing performed throughout the year to ensure performance when needed during a power failure. All generators would be operated strictly in accordance with permitted hours as determined by the Bay Area Air Quality Management District (BAAQMD).

Generators would be installed in a double-stacked configuration. Each double-stack would be provided with a 13,000-gallon sub-base fuel storage tank. The top generator would have a 160-gallon diesel fuel tank installed next to the generator. The sub-base fuel storage tanks with be provisioned with fuel ports to allow refilling from the paved loop road surrounding the data center.

Additionally, the project would include uninterruptable power supplies (UPS) with direct-current (DC) batteries for backup power. Batteries would provide enough energy to cover the critical load of 35-MW in the event of a power failure. UPS and batteries would be located on each of the four floors, adjacent to the computer room the system serves.

Battery technology for commercial UPS systems is lead-acid type. The batteries are placed in cabinets and installed next to the associated UPS module in a temperature-controlled room for optimum efficiency and battery life. The quantity of batteries is dictated by the length of time the standby optional, backup generators need to start and reach full operating power. This is typically less than 1 minute; however, a safety factor is added which results in an average of five to six minutes of battery power available.

Cooling

Servers convert electrical energy into heat as they operate and need to be kept cool. Therefore, cooling systems are a critical component of data center operation. Cooling systems would be installed to remove heat, ensuring servers operate safely and effectively. The project would include nine modular chiller plants located in the chiller yard adjacent to the SV9 data center. Adiabatic fluid coolers would be installed on the roof of the data center. Each 1,575-ton chiller would be supported by five adiabatic fluid coolers, for a total of 45 adiabatic fluid chillers. The adiabatic fluid coolers require minimal make-up water and would collectively use approximately 18 acre-feet annually, or 5,865,325 gallons. It is anticipated that the make-up water serving the adiabatic fluid coolers would have a single potable source. To supplement, two 15,000-gallon aboveground water storage tanks would be installed on site to provide 24-hours of make-up water in the event of temporary loss of water service. Aboveground water tanks would be installed adjacent to the modular chiller plants.

The make-up water would be chemically treated on-site before use to meet specifications for water quality. Biocides and scale and corrosion inhibitors would be injected into the stream to limit biological growth. Water treatment chemicals would be stored in a pumphouse, located adjacent to the modular chiller plant to treat incoming potable water.

Employees

It is anticipated that up to eight employees would typically be working in the building during the daytime, and up to five employees per shift would work in the building in the evening and overnight for a total of up to 18 employees every 24 hours. As needed, technical support personnel would also be present on the site.

Vehicle Trips

Truck trips would occur during project operation to deliver and remove equipment as needed. Passenger vehicle trips to the site would be minimal, consisting of employees traveling to the site for work and occasional client visits.

Energy Usage

Major sources of energy demand for project operations would be client servers and the cooling system. The facility would use a maximum of 48-MW for a maximum load of 1,152,000 kilowatt-hours (kWh) daily. Worst-case annual energy consumption would be 420,480 megawatt hours (MWh). Peak critical IT load would be 35 MW. The facility would be designed to achieve an average of 5 kWh per rack, and a power usage effectiveness (PUE) rating of 1.35.

Overall, the daily power usage would vary depending on how many servers are running and how intensely the SV9 data center's clients are running their servers. The building would require very little lighting. Lighting would be used only to support small areas such as a security area, lobby, and office/conference room.

The project's electricity demand would be served by SVP.

Construction

Construction of the facility would commence in October 2020 and be completed in November 2021. Conventional construction equipment would be used, such as excavators, backhoes, and both light-duty trucks and heavy-duty dump trucks. Truck trips are expected to reach the project site via US-101, San Tomas Expressway, Scott Boulevard, and Central Expressway in addition to Coronado Drive and Stender Way. Truck trips for off-haul of excavated materials are expected to travel along these same routes and arterials to dispose of construction demolition debris.

2 Air Quality

2.1 Environmental and Regulatory Setting

2.1.1 Local Climate and Meteorology

The project site is located within the San Francisco Bay Area Air Basin (SFBAAB or "Basin"), which is under the jurisdiction of BAAQMD. Air quality in the SFBAAB is affected by the region's emission sources and by natural factors. Topography, speed, and direction of wind, and air temperature gradient all influence air quality. The SFBAAB is affected by a Mediterranean climate, with warm, dry summers and cool, damp winters.

Air pollutant emissions in the SFBAAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include sources such as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

2.1.2 Air Quality Regulation

The federal and state governments have established ambient air quality standards for the protection of public health. The U.S. EPA is the federal agency designated to administer air quality regulation, while CARB is the state equivalent within the California Environmental Protection Agency (CalEPA). County-level Air Quality Management Districts (AQMDs) provide local management of air quality. CARB has established air quality standards and is responsible for the control of mobile emission sources, while the local AQMDs are responsible for enforcing standards and regulating stationary sources. CARB has established 15 air basins statewide, including the SFBAAB.

The U.S. EPA has set primary national ambient air quality standards (NAAQS) for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with diameters of up to ten microns (PM_{10}) and up to 2.5 microns ($PM_{2.5}$), and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, California has established health-based ambient air quality standards (known as the California ambient air quality standards [CAAQS]) for these and other pollutants, some of which are more stringent than the federal standards. Table 2 lists the current federal and state standards for regulated pollutants.

Table 2 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS	CAAQS
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.030 ppm	–
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	–	20 µg/m^3
	24-Hour	150 µg/m^3	50 µg/m^3
$PM_{2.5}$	Annual	12 µg/m^3	12 µg/m^3
	24-Hour	35 µg/m^3	–
Lead	30-Day Average	–	1.5 µg/m^3
	3-Month Average	0.15 µg/m^3	–

ppm = parts per million
µg/m^3 = micrograms per cubic meter
Source: CARB 2016

The project site is located in the Santa Clara County portion of the SFBAAB. The Santa Clara County portion of the Basin is a non-attainment area for the federal standards for $O_3$and $PM_{2.5}$ and the state standards for O_3, $PM_{2.5}$, and PM_{10}. The SFBAAB is designated unclassifiable or in attainment for all other federal and state standards (CARB 2019a).

The BAAQMD is primarily responsible for assuring national and state ambient air quality standards are attained and maintained in the Bay Area. The BAAQMD is also 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, and conducting public education campaigns, as well as many other activities. The BAAQMD has jurisdiction over much of the nine-county Bay Area, including Santa Clara County.

Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere. Primary criteria pollutants include CO, NO_2, PM_{10}, $PM_{2.5}$, SO_2, and Pb. Ozone is considered a secondary criteria pollutant because it is created by atmospheric chemical and photochemical reactions between reactive organic gases (ROG) and nitrogen oxides (NO_X). The following subsections describe the characteristics, sources, and health and atmospheric effects of critical air contaminants.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between NO_X and ROG.[1] Nitrogen oxides are formed during the combustion of fuels, while ROG are formed during combustion and evaporation of organic solvents. Because O_3 requires sunlight to form, it usually occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to O_3 include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a local pollutant that is found in high concentrations only near fuel combustion equipment and other sources of CO. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

Nitrogen Dioxide

Nitrogen dioxide is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 ppm may occur. Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility. It can also contribute to the formation of ozone/smog and acid rain.

Suspended Particulates

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM_{10} (small particulate matter which measures no more than 10 microns in diameter) and $PM_{2.5}$ (fine particulate matter which measures no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer $PM_{2.5}$ particulates are generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health

[1] Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), TOG (total organic gases), ROG (reactive organic gases), TOC (total organic compounds), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, two groups are important from an air quality perspective: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (HC, RHC, ROG, ROC, and VOC).

by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. Lead occurs in the atmosphere as particulate matter. The major sources of Pb emissions historically have been mobile and industrial sources. In the early 1970s, the U.S. EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The U.S. EPA completed the ban prohibiting the use of leaded gasoline in highway vehicles in December 1995. As a result of the U.S. EPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries in part due to national emissions standards for hazardous air pollutants (U.S. EPA 2013). As a result of phasing out leaded gasoline, metal processing is currently the primary source of Pb emissions. The highest levels of Pb in the air are generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. Lead may cause a range of health effects, including anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases). The proposed project does not include any stationary sources of lead emissions. Therefore, implementation of the project would not result in substantial emissions of lead, and this pollutant is not discussed further in this analysis.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM; CARB 2011a). TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

Title 24, California Code of Regulations

Updated every three years through a rigorous stakeholder process, Title 24 of the California Code of Regulations requires California homes and businesses to meet strong energy efficiency measures, thereby lowering their energy use. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), Part 12 (Referenced Standards Code).

Part 6 (Building Energy Efficiency Standards)

Part 6 of Title 24 contains the 2016 Building Energy Efficiency Standards for new residential and non-residential buildings, which went into effect on January 1, 2017. Part 6 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. The 2016 Standards improve upon the previous 2013 Standards for new construction of and additions and alterations to residential and nonresidential buildings. Under the 2016 Standards, nonresidential buildings are generally five percent more energy efficient than the 2013 Standards as a result of better windows, insulation, lighting, ventilation systems, and other features (CEC 2015). Part 6 also provides for the installation of cool roofs in Sections 140.3(a)(1), 141.0(b)(2)(B), and 141.0(b)(3).

The 2019 Building Energy Efficiency Standards, adopted on May 9, 2018, will become effective on January 1, 2020. The 2019 Standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 Standards, nonresidential buildings will be 30 percent more energy-efficient compared to the 2016 Standards (CEC 2018b).

Part 11 (CALGreen)

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. 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. The mandatory provisions of the CALGreen became effective January 1, 2011 and were updated in 2016. The 2016 Standards, which became effective on January 1, 2017, establish green building criteria for residential and nonresidential projects. The CEC adopted updates to the 2016 Standards in 2019 that will take effect on January 1, 2020. The project would be subject to these requirements.

City of Santa Clara 2035 General Plan

On November 16, 2010, the Santa Clara City Council adopted the 2010 – 2035 General Plan and certified the Final Environmental Impact Report. The Santa Clara General Plan includes goals and policies to address sustainability aimed in part at improving air quality. The following are applicable goals and policies that relate to the proposed project (City of Santa Clara 2014):

Goal 5.10.2-G1: Improved air quality in Santa Clara and the region.

Policy 5.10.2-P1	Support alternative transportation modes and efficient parking mechanisms to improve air quality.
Policy 5.10.2-P2	Encourage development patterns that reduce vehicle miles traveled and air pollution.
Policy 5.10.2-P3	Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.
Policy 5.10.2-P5	Promote regional air pollution prevention plans for local industry and businesses.

Policy 5.10.2-P6 Require "Best Management Practices" for construction dust abatement.

2.1.3 Current Air Quality

The BAAQMD operates a network of air quality monitoring stations throughout the SFBAAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and to determine whether ambient air quality meets the California and federal standards. The monitoring station closest to the project site is the San Jose-Jackson Street monitoring station, located at 156B Jackson Street in San Jose, approximately 4.4 miles southeast of the project site.

Table 3 indicates the number of days that each of the federal and state standards has been exceeded at these stations in each year from 2016 to 2018.[2] The data indicate that the federal and state eight-hour O_3standards and state worst hour ozone standard were exceeded in 2017. In addition, the state PM_{10} standard was exceeded in 2017 and 2018, and the federal PM_{10} standard was exceeded in 2018. The federal $PM_{2.5}$ standard was exceeded in each year between 2016 and 2018 (CARB 2019b).

As shown in Table 3, no other state or federal standards for which pollutant concentrations were measured were exceeded at these monitoring stations. No stations in the vicinity of the project site have monitored CO in the last four years (CARB 2019b).

Table 3 Ambient Air Quality

Pollutant	2016	2017	2018
Ozone (ppm), Eight-Hour Average	0.066	0.098	0.061
Number of days of state exceedances (>0.070 ppm)	0	4	0
Number of days of federal exceedances (>0.070 ppm)	0	4	0
Ozone (ppm), Worst Hour	0.087	0.121	0.078
Number of days of state exceedances (>0.09 ppm)	0	3	0
Nitrogen Dioxide (ppm), Worst Hour	0.0511	0.0675	0.0861
Number of days of state exceedances (>0.18 ppm)	0	0	0
Particulate Matter <10 microns ($\mu g/m^3$), Worst 24 Hours	40.0	69.4	155.8
Number of days of state exceedances (>50 $\mu g/m^3$)	0	6	4
Number of days of federal exceedances (>150 $\mu g/m^3$)	0	0	1
Particulate Matter <2.5 microns ($\mu g/m^3$), Worst 24 Hours	22.6	49.7	133.9
Number of days of federal exceedances (>35 $\mu g/m^3$)	1	6	15

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter of air
Data from the San Jose-Jackson Street monitoring station.
Source: CARB 2019b

[2] Ambient air quality data for 2019 is not yet available.

Air Quality Management Plan

Under state law, the BAAQMD is required to prepare a plan for air quality improvement for pollutants for which the SFBAAB is in non-attainment under the NAAQS. The BAAQMD adopted the 2017 Clean Air Plan as an update to the 2010 Clean Air Plan. The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. Consistent with the GHG reduction targets adopted by the state, the 2017 Clean Air Plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. To fulfill state O_3planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors—ROG and NO_X —and reduce transport of $O_3$and its precursors to neighboring air basins. In addition, the 2017 Clean Air Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and TACs (BAAQMD 2017a).

Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; people engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. The nearest sensitive receptors are residences located approximately 1,400 feet northwest of the project site.

2.2 Impact Analysis

2.2.1 Significance Thresholds

To determine whether a project would result in a significant impact to air quality, Appendix G of the *CEQA Guidelines* requires consideration of whether a project would:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

BAAQMD Significance Thresholds

The BAAQMD's May 2017 CEQA Air Quality Guidelines are used in this analysis to evaluate air quality. This update includes revisions made to the 2010 CEQA Air Quality Guidelines, addressing the California Supreme Court's 2015 opinion in the *Cal. Bldg. Indus. Association vs. Bay Area Air Quality Mgmt. Dist., 62 Cal. 4th 369* (BAAQMD 2017b).

Table 4 shows the significance thresholds for construction and operational-related criteria air pollutant and precursor emissions being used for the purposes of this analysis. These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the Basin's existing air quality

conditions. For the purposes of this analysis, the project would result in a significant impact if construction or operational emissions would exceed thresholds shown below.

Table 4 Criteria Air Pollutant Significance Thresholds

	Construction Thresholds	Operational Thresholds	
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

ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day

Source: BAAQMD 2017b

The BAAQMD recommends specific construction measures (as listed in Table 8-1 of the BAAQMD CEQA Guidelines) be implemented to control emissions, whether or not significance thresholds are exceeded.

Per the 2017 BAAQMD *CEQA Guidelines*, in addition to the required implementation of BACT to the generators pursuant to Regulation 2 Rule 5, the Air District may also require the implementation of administrative practices that would result in the lowest achievable emission rate pursuant to Regulation 2 Rule 2 (New Source Rule). This may include shutting down other stationary sources at the same facility or limiting operation of the source as a permit condition. Facilities may also purchase emission reduction credit to offset their emissions.

STATIONARY SOURCES

Per the BAAQMD CEQA Guidelines, newly modified or constructed stationary sources subject to Air District permitting may be required to implement Best Available Control Technology (BACT), which may include the installation of emissions control equipment or the implementation of administrative practices that would result in the lowest achievable emission rate. Stationary sources may also be required to offset their emissions of criteria air pollutants and precursors to be permitted. This may entail shutting down or augmenting another stationary source at the same facility. Facilities also may purchase an emissions reduction credit to offset their emissions.

Pursuant to BAAQMD Regulation 2 Rule 2 section 2-2-203, before the BAAQMD may issue an authority to construct or permit to operate for a new or modified source at any facility that will have the potential to emit more than 10 tons per year on NO_X after the source is constructed, offsets must be provided. If a facility will have the potential to emit more than 10 tons per year but less than 35 tons per year of NO_X after the new or modified source is constructed, the applicant must provide offsets at a 1:1 ratio for any un-offset cumulative increase in emissions at the facility and any related sources since the baseline date determined by the BAAQMD.

CARBON MONOXIDE HOTSPOTS

BAAQMD provides a preliminary screening methodology to conservatively determine whether a proposed project would exceed CO thresholds. If the following criteria are met, a project would result in a less than significant impact related to local CO concentrations:

- Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic 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 intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

TOXIC AIR CONTAMINANTS

BAAQMD has established screening criteria applicable to projects that would introduce new stationary sources of TAC emissions or add vehicle trips to major roadways, which are sources of TAC and $PM_{2.5}$ emissions. Community risk and hazards screening tools from BAAQMD can be applied to provide conservative estimates of TAC exposure. If these screening tools indicate that TAC levels from the project may be excessive, the BAAQMD recommends that further, more refined analysis, including site-specific dispersion modeling, be conducted for more accurate (and usually lower) risk and hazard estimates. The screening tools provide estimates for $PM_{2.5}$ concentrations, cancer risk, chronic hazard risk, and acute hazard risk from stationary, roadway, and highway sources. The risk and hazard screening analysis process includes the identification of emissions sources (permitted sources, highways, and major roadways [more than 10,000 average daily vehicle trips]) within 1,000 feet of the project's fence line using BAAQMD screening tools. If impacts due to emissions of TACs or $PM_{2.5}$ from any individual source would exceed any of the thresholds shown below, the project would result in a significant impact. Thresholds include:

- Non-compliance with a qualified 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 cumulatively considerable contribution; or
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ would be a cumulatively considerable contribution.

2.2.2 Methodology

Construction Emissions

Temporary criteria pollutant emissions from construction activities were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2, based on parameters that include the duration of construction activity, area of disturbance, and equipment anticipated to be used during construction. See Appendices A and B for CalEEMod modeling outputs.

The construction modeling relied on the following assumptions:

- **Construction Schedule.** It was assumed construction of the facility would commence in October 2020 and be completed in November 2021.
- **Demolition.** The existing 54,000 square foot building would be demolished. Estimated emissions associated with demolition of the existing building are included in the demolition phase of the project.

- **Standard Construction Practices**. It was assumed that the following standard construction practices would be implemented during project construction:
  - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) would be watered two times per day.
  - All vehicle speeds on unpaved roads would be limited to 15 miles per hour.

Operational Emissions

Existing Conditions

The project site is currently developed with a 54,000 square foot light industrial building and 80,000 square foot parking lot (as measured in Google Earth). Operational emissions under existing conditions were calculated using CalEEMod version 2016.3.2. Default CalEEMod assumptions were applied.

Project Area Source Emissions

Area sources include criteria pollutant emissions that would occur from operational vehicle use, water consumption for building cooling, architectural coatings, and other building uses not associated with electricity demand. The project's area source emissions were calculated using CalEEMod version 2016.3.2.

Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using guidance from CARB and the Emission Factors model (EMFAC) 2017 Emissions Inventory for the BAAQMD region for the year 2030 (the next State milestone target year for GHG emission reductions) using the EMFAC2011 categories (CARB 2018 and 2019c; see Appendix F for calculations).

Operational area source modeling relied on the following assumptions:

- **Operational Year.** Full internal buildout of the project (i.e. maximum usage of client servers and associated energy demand) may take up to 48 months. However, this analysis conservatively assumes a full-capacity operation starting following completion of facility construction.
- **Water Demand**. Based on applicant-provided information, the mechanical cooling system would require approximately 18 acre-feet (approximately 5.9 million gallons) of water per year.
- **Employee Vehicle Trips.** Based on the Institute of Traffic Engineers *Trip Generation Manual*, a data center land use would generate 0.99 trips daily per every 1,000 square feet (ITE 2017). Using the ITE rate, the project would produce an estimated 244 total daily trips. This is a conservative estimate, as only 18 employees are anticipated on the project site every 24 hours. Commuting distance was assumed to be 7.3 miles each way (CalEEMod default).

Stationary Source Emissions

CalEEMod only calculates direct emissions of criteria pollutants from energy sources that combust on-site, such as natural gas used in a building (California Air Pollution Control Officers Association 2017). CalEEMod does not calculate or attribute emissions of criteria pollutants from electricity generation to individual projects because fossil fuel power plants are existing stationary sources permitted by air districts and/or the U.S. EPA, and they are subject to local, state and federal control measures. Criteria pollutant emissions from power plants are associated with the power plants themselves, and not individual projects or electricity users.

The project would include 16 backup diesel generators on-site, which would be operated in the event of a utility failure. Stationary source emissions associated with the operation of the 16 backup diesel generators were calculated based on manufacturer specifications, exhaust emission data for U.S. EPA Tier 2 emissions standards equipped with level 3 diesel particulate filter, and the estimated frequency and duration of operation of the generators. See Appendix C for diesel generator emissions calculations.

Operational stationary source modeling relied on the following assumptions:

- **Maintenance Testing**. The generators would have maintenance testing performed throughout the year. To account for criteria pollutant emissions generated during maintenance testing activities, it was assumed that each backup diesel generator would be operated for up to 50 hours per year, the maximum allowed operational time under BAAQMD stationary source permits. Average daily emissions were calculated, as per BAAQMD guidance.
- **Emergency Usage.** Criteria pollutant emissions were not calculated for emergency use scenarios such as a power failure, as BAAQMD stationary source permitting exempts emergency use.

2.2.3 Project Impacts

Threshold 1	Would the project conflict with or obstruct implementation of the applicable air quality plan?

The California Clean Air Act requires air districts to create a Clean Air Plan that describes how the jurisdiction will meet air quality standards. These plans must be updated every three years. The most recently adopted air quality plan is the BAAQMD 2017 Clean Air Plan, described in the Air Quality Management section above. The 2017 Clean Air Plan does not include control measures that apply directly to individual development projects. Instead, the control strategy includes measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

The 2017 Clean Air Plan focuses on two paramount goals:

- Protect air quality and health and the regional and local scale by attaining all state and national air quality standards and eliminating disparities among Bay Area communities in cancer health risk from toxic air contaminants
- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050

Under BAAQMD's methodology, a determination of consistency with the 2017 Clean Air Plan should demonstrate that a project:

- Supports the primary goals of the air quality plan
- Includes applicable control measures from the air quality plan
- Does not disrupt or hinder implementation of any air quality plan control measures

A project that would not support the 2017 Plan's goals would not be considered consistent with the 2017 Clean Air Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the clean air plan's goals. As shown in the response to checklist items b and c (see below), the project would not result in exceedances of BAAQMD 2017 thresholds for criteria air pollutants and thus would not conflict with the 2017 Clean

Air Plan's goal to attain air quality standards. In addition, as a data center project with minimal employees, the project would not induce population growth in the region in a manner that would exceed regional population growth forecasts used in the 2017 Clean Air Plan. The proposed project would not conflict with implementation of the 2017 Clean Air Plan.

Therefore, the proposed project would result in a less than significant impact with implementation of the 2017 Clean Air Plan.

Threshold 2	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Project construction would involve site preparation, grading, excavation, building construction, and other construction-related activities that have the potential to generate air pollutant emissions. The temporary construction emissions and long-term operational emissions for the proposed project are discussed below.

Construction Emissions

Project construction would generate temporary criteria pollutant emissions primarily due to the operation of construction equipment and truck trips.

As shown in Table 5, average daily construction emissions would not exceed the BAAQMD thresholds of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$; or 82 pounds per day of PM_{10}. Complete results from CalEEMod and assumptions are included in Appendix A.

Table 5 Construction Emissions (pounds/day)

Pollutant	Total Emissions (tons)	Average Daily Emissions (lbs/day)[1]	BAAQMD Significance Threshold[2]	Significant Impact?
ROG	1.5	7.6	54	No
NO_x	2.9	14.7	54	No
PM_{10}	0.3	1.5	82	No
$PM_{2.5}$	0.2	1.0	54	No

ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day

See Appendix A for CalEEMod worksheets. Results taken from "mitigated" outputs.

[1] Average daily emissions (lbs/day) was calculated by dividing the total emissions by the total number of days construction activity occurred (i.e. October 2020 through November 2021 is approximately 395 days).

[2] Note the thresholds for PM_{10} and $PM_{2.5}$ apply to construction exhaust emissions only

Operational Emissions

The project site is currently developed with a 54,000 square foot light industrial building and an approximately 80,000 square foot parking lot. Table 6 summarizes the criteria pollutants emitted from the site under existing conditions.

Table 6 Existing Baseline Conditions - Operational Emissions

Pollutant	Annual Emissions (tpy)	Average Daily Emissions (lbs/day)[1]
ROG	0.3	1.8
NO_x	0.5	2.6
PM_{10}	0.3	1.7
$PM_{2.5}$	0.1	0.5

tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

See Appendix B for CalEEMod worksheets. Results taken from "mitigated" outputs.

[1] Average daily emissions are the annual emissions divided by 365.

Long-term emissions associated with project operation would include emissions from both land use (indirect mobile- and area-source) and stationary sources. Table 7 summarizes operational emissions from non-stationary sources, including employee vehicle trips and architectural coating.

Table 7 Project Operational Emissions – Land Use Sources

Pollutant	Annual Emissions (tpy)	Average Daily Emissions (lbs/day)[1]
ROG	1.1	6.0
NO_x	0.4	2.2
PM_{10}	<0.1	<0.1
$PM_{2.5}$	<0.1	<0.1

BAAQMD = Bay Area Air Quality Management District; tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

See Appendix A for CalEEMod worksheets. Table shows only Area and Mobile emissions combined. Results taken from "mitigated" outputs.

[1] Average daily emissions are the annual emissions divided by 365.

Table 8 summarizes operational emissions associated with annual testing and maintenance operations of the 16 emergency generators on site (stationary sources) assuming annual operation of 50 hours per generator. Operational emissions calculations account for the application of Level 3 verified diesel particulate filters with a minimum control efficiency of 85 percent removal of particulate matter.

Table 8 Project Operational Emissions – Stationary Sources

Pollutant	Annual Emissions (tpy)	Average Daily Emissions (lbs/day)[1]
ROG	0.2	1.2
NO_x	27.2	148.9
PM_{10}	<0.1	0.2
$PM_{2.5}$	<0.1	0.2

BAAQMD = Bay Area Air Quality Management District; tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

See Appendix C for stationary source (backup diesel generator) emissions calculations.

[1] Average daily emissions are the annual emissions divided by 365.

BAAQMD is responsible for issuing permits for the construction and operation of stationary sources in order to reduce air pollution, and to attain and maintain the national and California air quality standards in the SFBAAB. Per the 2017 BAAQMD *CEQA Guidelines*, emissions from newly constructed stationary sources subject to Air District permitting should be added to the indirect and area sources emissions estimates after the application of BACT or offsets to estimate total project emissions.

Table 9 summarizes the combined operational emissions from land use and stationary sources.

Table 9 Total Project Operational Emissions

Pollutant	Annual Emissions (tpy)	Average Daily Emissions (lbs/day)[1]
ROG	1.3	7.2
NO_x	27.6	151.1
PM_{10}	<0.1	0.3
$PM_{2.5}$	<0.1	0.2

tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Total project operational emissions include emissions from both land use sources and stationary sources. See Appendix A for CalEEMod worksheets. See Appendix C for stationary source (backup diesel generator) emissions calculations.

[1] Average daily emissions are the annual emissions divided by 365.

To assess the project's net increase in criteria pollutant emissions on the project site, the emissions produced under existing baseline conditions were subtracted from the total project operational emissions as shown in Table 10.

Table 10 Net Project Operational Emissions (Project Minus Baseline)

Pollutant	Net Project Annual Emissions (tpy)	BAAQMD Annual Significance Threshold (tpy)	Net Project Average Daily Emissions (lbs/day)[1]	BAAQMD Daily Significance Threshold (lbs/day)	Significant Impact?
ROG	1.0	10	5.4	54	**No**
NO_x	27.1	10	148.5	54	**Yes**
PM_{10}	-0.3	15	-1.4	82	**No**
$PM_{2.5}$	-0.1	10	-0.3	54	**No**

tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

See Appendices A and B for CalEEMod worksheets. See Appendix C for stationary source (backup diesel generator) emissions calculations.

[1] Average daily emissions are the annual emissions divided by 365.

Table 10 shows that combined emissions from project operation would exceed BAAQMD operation emissions thresholds for NO_X. No other criteria pollutant threshold would be exceeded. The exceedance of the NO_X annual and daily thresholds is associated with the operation of the diesel generators on site which would require issuance of a permit to operate. As shown in Table 8, operation of the 16 diesel generators 50 hours per year would result in approximately 27 tons of NO_X per year at the facility. As discussed in Significance Thresholds, pursuant to BAAQMD Regulation 2 Rule 2 section 2-2-203, if a facility will have the potential to emit more than 10 tons per year but less than 35 tons per year of NO_X after the new or modified source is constructed, the applicant must provide offsets at a 1:1 ratio for any un-offset cumulative increase in emissions at the facility.

Mitigation Measure AQ-1 would be required to reduce annual and average daily NO_X emissions from the stationary sources on-site during operation to a less-than-significant level.

Mitigation Measures

Project operation would generate NO_X emissions exceeding the BAAQMD criteria pollutant emission thresholds due to the operation of the diesel generators on site. The following mitigation measure would be applied to reduce NO_X emissions from the stationary sources on-site.

Mitigation Measure AQ-1

In order to reduce NO_X emissions below the BAAQMD threshold, the applicant shall implement one of the following options to mitigate NO_x emissions:

Option 1 The applicant shall limit non-emergency operation (including testing and maintenance) of each backup diesel generator to no more than 18 hours per year; or

Option 2 If non-emergency operation of the diesel generators are to exceed 18 hours per year then, pursuant to BAAQMD Resolution 2 Rule 2 Section 2-2-203, the applicant shall provide offsets at a 1:1 ratio for any un-offset cumulative increase in emissions at the facility. Offsets are banked emission reduction credits approved in accordance with BAAQMD Regulation 2, Rule 4, or banked emission reduction credits from adjacent air districts meeting certain definitions (as defined in BAAQMD Resolution 2 Rule 2). Per BAAQMD Resolution 2 Rule 2 Section 2-2-203, offsets may be purchased from the Small Facility Banking Account in the District's Emissions Bank, unless the Small Facility Banking Account is exhausted or the applicant owns or controls offsets. In that case, the applicant shall provide any required offsets.

Significance After Mitigation

Option 1

Mitigation Measure AQ-1 Option 1 would require operational hours for each generator not exceed 18 hours in a year. Operational emissions after implementation of Option 1 were calculated based on manufacturer specifications and exhaust emission data for U.S. EPA Tier 2 emissions standards. The stationary source emissions were added to operational emissions estimated by CalEEMod to estimate total project operational emissions. Baseline conditions estimated in CalEEMod were then subtracted from this total to calculate the net operational emissions after mitigation shown in Table 11.

Table 11 Project Net Operational Emissions after Mitigation (18 Hours Per Year)

Pollutant	Stationary Source Emissions (tpy)	Net Annual Project Emissions (tpy)[1]	BAAQMD Annual Significance Threshold (tpy)	Net Average Daily Emissions (lbs/day)[2]	BAAQMD Daily Significance Threshold (lbs/day)	Significant Impact?
ROG	0.1	0.9	10	4.6	54	**No**
NO_x	9.8	9.3	10	53.2	54	**No**
PM_{10}	<0.1	-0.29	15	-1.6	82	**No**
$PM_{2.5}$	<0.1	-0.09	10	-0.4	54	**No**

tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

See Appendices A and B for CalEEMod worksheets. See Appendix C for stationary source (backup diesel generator) emissions calculations.

[1] Net annual emissions include project emissions (land use and stationary sources) minus existing baseline conditions emissions.

[2] Average daily emissions are the annual emissions divided by 365.

Table 11 shows that emissions from project operation would not exceed BAAQMD operation emissions thresholds for all criteria pollutants when non-emergency operational hours of each generator is limited to no more than 18 hours per year. Therefore, implementation of Mitigation Measure AQ-1 Option 1 would reduce the potentially significant impact to a less-than-significant level.

Option 2

Before the BAAQMD may issue an authority to construct or permit to operate for a new or modified source at any facility that will have the potential to emit more than 10 tons per year of NO_X, offsets must be provided. If non-emergency operation of the diesel generators are to exceed 18 hours per year, Mitigation Measure AQ-1 Option 2 would require the applicant to fully offset any un-offset cumulative increase in emissions at the facility. Existing baseline NO_X emissions are calculated to be an average of 2.6 pounds per day. With full offsets beyond the average 2.6 pounds per day, the project would not exceed the daily significance thresholds of 54 pounds per day. Therefore, implementation of Mitigation Measure AQ-1 Option 2 would reduce the potentially significant impact to a less-than-significant level.

Threshold 4	Would the project expose sensitive receptors to substantial pollutant concentrations?
Threshold 5	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as population groups more susceptible to exposure to pollutants; examples include health care facilities, retirement homes, school and playground facilities, and residential areas. There are no sensitive receptors within 1,000 feet of the project site. The nearest sensitive receptors are residences located approximately 1,400 feet northwest of the project site.

Toxic Air Contaminants

Health impacts associated with TACs are generally due to long-term exposure. Typical sources of TACs include industrial processes such as petroleum refining operations, commercial operations such as gasoline stations and dry cleaners, and diesel exhaust. BAAQMD recommends that lead agencies should review risks from nearby roadways, freeways, and stationary sources for new receptor projects (BAAQMD 2012). Project operation would not create new receptors. However, it would include 16 backup diesel generators, which are considered a typical source of TAC emissions.

Per guidance in BAAQMD's *Recommended Methods for Screening and Modeling Local Risks and Hazards* (2012), for new sources there is no project radius recommended. Rather the location of the maximum risk, hazard, and $PM_{2.5}$ concentration from the new source affecting a receptor should be identified. BAAQMD considers sensitive receptors to be people occupying or residing in residential dwellings, schools, daycares, hospitals, and senior-care facilities. The nearest sensitive receptors to the project site are residences located approximately 1,400 feet to the northwest. As recommended by the BAAQMD *CEQA Guidelines*, the estimated risk associated with sources permitted by BAAQMD, such as the proposed diesel generators, should be evaluated first using a screening-level analysis. BAAQMD *Risk and Hazards Emissions Screening Calculator* (Beta Version) was used to calculated cancer risk, chronic hazard index, and $PM_{2.5}$ concentrations (BAAQMD 2019b) using the emissions data for the operation of all 16 diesel generators for 50 hours per year.

Diesel generator emission estimates were based on manufacturer specifications, exhaust emission data for U.S. EPA Tier 2 emissions standards, and the estimated frequency and duration of operation of the generators (i.e., 50 hours/year). To evaluate ground level concentration of DPM and $PM_{2.5}$, it was conservatively assumed that DPM emissions would be equivalent to the generator PM emissions and $PM_{2.5}$ emissions made up 97.6% of total generator PM emissions (SCAQMD 2006). Based on the manufacturer exhaust emissions rate certification and implementation of BACT, daily average DPM emissions and $PM_{2.5}$ emissions would be approximately be 0.18 lbs/day. Consequently, at the project site the associated cancer risk would be 253.2 in one million, the chronic hazard index would be 0.068, and $PM_{2.5}$ emissions would be 0.34 $\mu g/m^3$. The BAAQMD's *Diesel Internal Combustion Engine Distance Multiplier Tool* further refines the screening values for risk and $PM_{2.5}$ based on the distance to the receptor. However, the distance multiplier in the *Risk and Hazards Emissions Screening Calculator* (Beta Version) does not extend beyond 1,000 feet. Therefore, a distance adjustment multiplier for this analysis was extrapolated for 1,400 feet.[3] The estimated cancer risk, hazard index and $PM_{2.5}$ concentration was compared to the BAAQMD single source thresholds.

Table 12 summarizes the results associated with operation of the generators equipped with a diesel particulate filter for 50 hours at the nearest sensitive receptor considered the maximum exposed individual (MEI) in this analysis.

Table 12 Health Risks from Generator Operation (50 Hours Per Year at 1,400 Feet)

Scenario	Excess Cancer Risk (per million)	Chronic Health Risk[1]	$PM_{2.5}$ $\mu g/m^3$ annual average
Maximum Exposed Individual	6.8	0.0018	0.009

[3] The relationship between distance and the distance adjustment multiplier contained in the *Risk and Hazards Emissions Screening Calculator* (Beta Version) for diesel backup generators was fit with a power trendline (R^2 = 0.98). The resulting trendline equation was used to extrapolate up to 2,624.7 feet.

BAAQMD Significance Threshold	>10	>1	>0.3
Threshold Exceeded?	No	No	No

$PM_{2.5}$ = particulate matter less than 2.5 microns in size; µg/m^3 = micrograms per cubic meter;

[1] Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless.

[2] There is no acute reference exposure level for diesel exhaust to calculate acute health risk. Furthermore, except for unusual circumstances of high exposure, Office of Environmental Health Hazard Assessment does not recommend acute analysis for DPM.

As shown in Table 12, operation of the diesel generators equipped with a DPF for 50 hours per year would not result in an exceedance of BAAQMD single source significance thresholds for excess cancer risk, chronic risk, and ground level $PM_{2.5}$ concentrations at the nearest sensitive receptor.

BAAQMD's *Recommended Methods for Screening and Modeling Local Risks and Hazards* (2011) also recommends assessing cumulative impacts of a new source or sources in combination with existing sources located within 1,000 feet of the project site. Cumulative impacts to the maximally impacted receptor should include the new source as well as any additional sources located within a 1,000-foot radius of the project site. Within 1,000 feet of the project site, five other stationary sources were identified using the BAAQMD's *Stationary Source Risk & Hazard Analysis Tool* (2012) as well as the Central Expressway located directly south of the project site. However, of the five identified stationary sources only three sources had data or values for cancer risk, hazard, and $PM_{2.5}$ and were included in this analysis.

The cumulative analysis at the project site included the stationary source located at Universal Semiconductor Technology, Inc. (Plant Number 17945), approximately 3,349 feet northeast of the MEI, ON Semiconductors Inc. (Plant Number 19856), approximately 2,590 feet north of the MEI, and NVIDIA (Plant Number 13074), approximately 2,550 feet northeast of the MEI. Because the distance multiplier in the *Risk and Hazards Emissions Screening Calculator* (Beta Version) does not extend beyond 1,000 feet, the maximum distance adjustment multiplier provided in the tool was used for each stationary source to provide a conservative analysis. Additionally, the cumulative analysis includes risk and $PM_{2.5}$ concentration associated with roadway traffic on the Central Expressway between Bowers Avenue and San Tomas Expressway, approximately 2,270 feet north of the MEI. The 2020 annual average daily traffic for Central Expressway of approximately 50,560 was estimated by interpolating between the existing 2008 traffic and anticipated 2035 traffic as listed in the *Transportation and Mobility Assumptions* for the *City of Santa Clara General Plan* (City of Santa Clara 2010) and using BAAQMD's *Roadway Screening Calculator* (2012). The *Roadway Screening Calculator* does not extend past 1,000 feet therefore the risk and $PM_{2.5}$ associated with the roadway from a 1,000 feet was included in the cumulative analysis. This is a conservative estimate as each source included in this cumulative analysis is over 1,000 feet from the MEI. Cumulative impacts from project operation at the project site are reported in Table 13.

Table 13 Cumulative Health Risks Associated with Operation of Generators

Source	Excess Cancer Risk (per million)	Chronic Health Risk[1]	$PM_{2.5}$ µg/m^3 annual average
Project Operation (50 hours)	6.8	0.0018	0.009
Central Expressway[2]	3.1	--	0.077

Universal Semiconductor Technology, Inc. (Plant Number 17945)[3]	1.4	0.0009	0.002
ON Semiconductors Inc. (Plant Number 19856)[3]	0.5	0.005	0.0009
NVIDIA (Plant Number 13074)[3]	2.5	0.022	0.005
Cumulative Total	**14.3**	**0.03**	**0.09**
BAAQMD Significance Threshold	>100	>10	>0.8
Threshold Exceeded?	No	No	No

$PM_{2.5}$ = particulate matter less than 2.5 microns in size; µg/m^3 = micrograms per cubic meter

[1] Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless.

[2]Calculated using the BAAQMD's Roadway Screening Analysis Calculator at a distance of 1,000 feet for the Central Expressway.

[3]Calculated using the BAAQMD's *Risk and Hazards Emissions Screening Calculator* (Beta Version) at the maximum distance available in the distance multiplier tools. For backup diesel generators the maximum distance is 918.6 feet and for generic cases is 984.3 feet.

For health risk calculations, see Appendix D.

As shown in Table 13, cumulative sources of TACs would not result in an exceedance of annual $PM_{2.5}$ concentrations, chronic or cancer health risks above cumulative significance thresholds at the MEI with operation of the diesel generators equipped with a diesel particulate filter for 50 hours per year. Therefore, cumulative operational impacts would be less than significant.

Carbon Monoxide (CO) Hotspots

This analysis conservatively assumes each of the 18 daily employees would individually drive to and from the facility every day. Accordingly, the project would generate up to 36 vehicle trips per day. In comparison, according to CalEEMod modeling, the existing light industrial building on the project site is estimated to generate up to 284 average daily trips. Therefore, the project would result in approximately 248 fewer vehicle trips per day than existing conditions. The project would have no impact on affected intersections and would be consistent with the County Congestion Management Program. As a result, the project would not result in individually or cumulatively significant impacts from CO emissions and would have a less than significant impact on local CO concentrations.

Objectionable Odor Impact

During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. Construction-related odors would disperse and dissipate and would not cause substantial odors near the project site. The nearest sensitive receptor is located 1,400 feet northwest of the project site. In addition, construction-related odors would be temporary and would cease upon completion of construction.

The project would involve construction of a data center and would not include uses that generate substantial objectionable odors as listed on Table 3-3 in the BAAQMD *CEQA Air Quality Guidelines* or site a new odor source or receptor (BAAQMD 2017b).

3 Greenhouse Gas Emissions

3.1 Environmental and Regulatory Setting

3.1.1 Climate Change and Greenhouse Gases

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills.

Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (U.S. EPA 2019). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane CH_4 has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2007).

3.1.2 Regulatory Setting

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 million metric tons of carbon dioxide-equivalent (MMT CO_2e). The Scoping Plan was approved in 2008 and included measures to address GHG emission reduction strategies related to energy efficiency, water, recycling and solid waste. CARB has approved two updates to the Scoping Plan in 2014 and 2017. These set the groundwork to reach post-2020 statewide goals (CARB 2019a).

Senate Bill 32

On September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, extending AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and policies, such as SB 1383 for solid waste reduction. The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with statewide per capita goals of six MT CO_2e by 2030 and two MT CO_2e by 2050. As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18

On September 10, 2018, the governor issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

2017 Bay Area Clean Air Plan

On April 19, 2017, the BAAQMD adopted the 2017 Bay Area Clean Air Plan. The 2017 Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Plan describes how the BAAQMD will continue its progress toward attaining all state and federal ambient air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050, and provides a regional climate protection strategy to put the Bay Area on a pathway to achieving those GHG reduction targets.

BAAQMD publishes *CEQA Guidelines* (updated May 2017 [BAAQMD 2017b]) to assist lead agencies in evaluating a project's potential impacts on air quality. The *CEQA Guidelines* document describes the criteria that BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. The BAAQMD *CEQA Guidelines* also outline a methodology for estimating GHGs.

City of Santa Clara 2035 General Plan

On November 16, 2010, the Santa Clara City Council adopted the 2010 – 2035 General Plan and certified the Final Environmental Impact Report. The Santa Clara General Plan includes goals and policies to address sustainability aimed in part at reducing the City's contributions to GHG emissions. The following are applicable goals and policies that relate to the proposed project (City of Santa Clara 2014):

Goal 5.10.2-G2: Reduced greenhouse gas emissions that meet the State and regional goals and requirements to combat climate change.

Policy 5.10.2-P2	Encourage development patterns that reduce vehicle miles traveled and air pollution.
Policy 5.10.2-P4	Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.

City of Santa Clara Climate Action Plan

The City of Santa Clara adopted a Climate Action Plan (CAP) as part of its General Plan on December 3, 2013 (City of Santa Clara 2013). The City of Santa Clara CAP specifies the strategies and measures to be taken for a number of focus areas (coal-free and large renewables, energy efficiency, water conservation, transportation and land use, waste reduction, etc.) citywide to achieve the overall emission reduction target, and includes an adaptive management process that can incorporate new technology and respond when goals are not being met.

CEQA clearance for discretionary development proposals are required to address the consistency of individual projects with reduction measures in the City of Santa Clara CAP and goals and policies in the Santa Clara General Plan designed to reduce GHG emissions.

The following goal and measure relate to the proposed project (City of Santa Clara 2013):

Goal: Maximize the efficient use of energy throughout the community.

MEASURE 2.3: DATA CENTERS

"Data centers constitute a large portion of the electricity used in Santa Clara. On average, 28% of total electricity consumed in the community is used by data centers. Recognizing both the economic benefit and the climate effects of data centers is an essential part of this CAP. To respond to the effects of this electricity use, the City will require new data centers with an average rack power rating of 15 kW or more to complete a feasibility study identifying techniques to achieve a power usage effectiveness (PUE) rating of 1.2 or lower. Where determined feasible, the City will encourage applicants to utilize such techniques. To aid industry stakeholders in this feasibility analysis, the City will provide guidance and examples of successful and feasible techniques, and will evaluate on an annual basis the incentives available through SVP to improve the cost-effectiveness of this measure."

3.2 Impact Analysis

3.2.1 Significance Thresholds

State CEQA Guidelines

Based on Appendix G of the 2019 *CEQA Guidelines*, impacts related to GHG emissions from the project would be significant if the project would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

In addition, *CEQA Guidelines* Section 15064.4(b) states that a lead agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions.

The vast majority of individual projects do not generate sufficient GHG emissions to create significant project-specific environment effects. However, the environmental effects of a project's GHG emissions can contribute incrementally to cumulative environmental effects that are significant, thereby contributing to climate change even if an individual project's environmental effects are limited (*CEQA Guidelines* Section 15064[h][1]). The issue of a project's environmental effects and contribution towards climate change typically involves an analysis of whether or not a project's contribution towards climate change is cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines* Section 15064[h][1]).

CEQA Guidelines Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, as long as any threshold chosen is supported by substantial evidence (*CEQA Guidelines* Section 15064.7[c]).

According to *CEQA Guidelines* Section 15183.5, project-specific environmental documents can tier from, or incorporate by reference, the existing programmatic review in a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan.

CEQA Guidelines Section 15183.5 defines the following requirements for a qualified GHG emission reduction plan:

1. Quantify existing and projected GHG emissions within the plan area;
2. Establish a reduction target based on substantial evidence, where GHG emission are not cumulatively considerable;
3. Identify and analyze sector specific GHG emissions from plan activities;
4. Specify policies and actions (measures) that local jurisdictions will enact and implement over time to achieve the specified reduction target;
5. Establish a tool to monitor progress and amend if necessary; and
6. Adopt in a public process following environmental review.

The City of Santa Clara CAP (2013) was prepared consistent with *CEQA Guidelines* Section 15183.5 and includes a 2020 GHG reduction target based on AB 32 goals. Projects that operational up to 2020 would have a less than significant impact related to GHG emissions if they are consistent with the CAP. The CAP includes a post-2020 reduction target, but does not include sufficient strategies to achieve the goal. Because the project would not be operational until 2022, the Santa Clara CAP would not be a qualified GHG emission reduction plan for the purposes of this analysis. However, consistency with the CAP framework is considered and assessed in this analysis, as many of the policies will likely be carried forward by the City to address post-2020 emissions.

BAAQMD Significance Thresholds

In the 2017 BAAQMD CEQA Air Quality Guidelines, the BAAQMD outlines an approach to determine the significance of projects. The BAAQMD recommends that lead agencies determine appropriate GHG emissions thresholds of significance based on substantial evidence in the record.

The BAAQMD has not established a quantitative significance threshold for evaluating construction-related emissions; however, the BAAQMD does recommend quantifying and disclosing construction-generated GHG emissions. Therefore, to characterize the construction emissions, the total emissions generated during construction were amortized based on the life of the development (30 years) and added to the operational emissions.

The 2017 BAAQMD *CEQA Guidelines* establish the following significance thresholds for operational GHG emissions from land use development projects within the SFBAAB (BAAQMD 2017b):

- Compliance with a qualified GHG Reduction Strategy;
- Annual emissions less than 1,100 MT of CO_2e per year; or
- Annual emissions less than 4.6 MT of CO_2e per service population (residents and employees) per year.

The BAAQMD annual emissions threshold of 1,100 MT of CO_2e per year was designed to capture 90 percent of all emissions associated with typical land use development projects in the Basin and require implementation of mitigation so that a considerable reduction in emissions from new projects would be achieved. However, data centers are not typical land use types, as they generate exceptionally high electricity demand and relatively low direct GHG emissions. The vast majority of GHG emissions associated with the operation of data centers are indirect emissions resulting from electricity demand, the GHG intensity of which is determined by the utility. Therefore, the bright-line threshold established by BAAQMD for typical land uses is not appropriate for evaluating the significance of the project's GHG emissions.

Similarly, the BAAQMD per service population threshold of 4.6 MT of CO_2e per year is not appropriate for the project, as it is intended for residential, commercial/retail, or mixed-use projects (BAAQMD 2017b).

Per BAAQMD guidance, this analysis calculates and discloses the construction and operational GHG emissions associated with the project for informational purposes. To determine the significance of GHG emissions, this analysis qualitatively assesses consistency with local and statewide GHG reduction regulations. Although the City of Santa Clara CAP does not include post-2020 reduction targets and is therefore not a qualified GHG reduction plan for post-2020 projects, this analysis analyzes the project's consistency with the framework of the CAP. Specifically, this analysis analyzes the project's consistency with Measure 2.3, which pertains to the energy efficiency of data centers. It also assesses the project's consistency with statewide GHG reduction targets, including the Renewable Portfolio Standard (RPS). Total anticipated project GHG emissions are shown for informational purposes.

STATIONARY SOURCES

Due to the standby diesel generators on the project site, the project would meet the definition of a small power plant under California Energy Commission regulations and would be required to apply for and obtain a Small Power Plant Exemption prior to operations of the project. The stationary source threshold of 10,000 MT of CO_2e per year was developed to capture approximately 95 percent of all GHGs from permitted sources therefore capturing the largest and most significant stationary source of GHGs. As such, the stationary source threshold is considered an appropriate threshold for use in determining the significance of project impacts related to stationary sources (BAAQMD 2017b). Per 2017 BAAQMD *CEQA Guidelines*, new stationary sources should be evaluated separately from project operation emissions associated with land use and are not considered "cumulatively considerable" from a land use perspective if the stationary sources comply with the 10,000 MT CO_2e per year threshold.

3.2.2 Methodology

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude and nature of the project's potential GHG emissions and environmental effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume and are the GHG emissions that the project would emit in the largest quantities (IPCC 2007). Fluorinated gases, such as HFCs, PFCs, and SF_6, were also considered for the analysis. Small amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would also be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. Emissions of all GHGs are converted into their equivalent GWP in MT of CO_2e. Calculations are based on the methodologies discussed in the CAPCOA *CEQA and Climate Change* white paper (2008).

Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and in the commute vehicles of construction workers. Smaller amounts of GHGs are also emitted indirectly through the energy use embodied in any water use for fugitive dust control and lighting for construction activity. Every phase of the construction process, including demolition, grading, paving, and building, would emit GHG emissions in volumes proportional to the quantity and type of construction equipment used. Heavier equipment typically emits more GHGs

per hour of use than lighter equipment because of their greater fuel consumption and engine design.

Construction emissions were calculated in CalEEMod version 2016.3.2. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Construction of the proposed project was analyzed based on the applicant-provided construction schedule and construction equipment list. The BAAQMD has not established a quantitative significance threshold for evaluating construction-related emissions; however, the BAAQMD does recommend quantifying and disclosing construction-generated GHG emissions. Therefore, to characterize the construction emissions, the total emissions generated during construction were amortized based on the life of the development (30 years) and added to the operational emissions.

Construction modeling relied on assumptions identified in the Air Quality Methodology section of this document.

Operational Emissions

To calculate net project emissions, this analysis subtracts existing (baseline) conditions emissions from project emissions. Existing (baseline) conditions were modeled using CalEEMod version 2016.3.2. The following sections characterize the modeling effort for project emissions. Operational modeling also relied on assumptions identified in the Air Quality Methodology section of this document.

Area Source

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating, were calculated in CalEEMod and utilize standard emission rates from CARB, USEPA, and emission factor values provided by the local air district.

Water

Water consumption results in indirect emissions from electricity usage for water conveyance and wastewater treatment. These emissions were calculated in CalEEMod.

Solid Waste

Data center operations would generate solid waste, which results in fugitive GHG emissions during decomposition. These emissions were calculated in CalEEMod.

Energy

Annual GHG emissions associated with energy demand are the product of estimated annual electricity usage and the utility-specific carbon intensity factor, which depends on the utility's portfolio of power generation sources. The proposed project would be served by SVP. Per SB 100, the statewide RPS Program requires electricity providers to increase procurement from eligible renewable energy sources to 60 percent by 2030.

SVP has a lower emission rate than the statewide California power mix because it utilizes a higher portion of renewable sources. SVP currently procures 38 percent of its energy portfolio from eligible renewable energy sources (SVP 2018). Because the operational life of the project would extend past the 2030 time horizon, the GHG emissions associated with electricity usage would decrease over time as SVP procures more of its portfolio from renewable sources. Therefore, this analysis utilizes

SVP's anticipated 2030 energy source portfolio from the *2018 Integrated Resource Plan* (SVP 2018) to calculate the utility's future energy intensity factor and the project's electricity-related operational GHG emissions.

A 2030 energy intensity factor of 0.0821 MT (or 164.4 pounds) of CO_2e was calculated by dividing the total GHG emissions from identified 2030 supply sources by the 2030 projected total energy from supply resources (SVP 2018). See Appendix E for electricity usage GHG calculations.

Mobile

Based on the Institute of Traffic Engineers *Trip Generation Manual*, a data center land use would generate 0.99 trips daily per every 1,000 square feet (ITE 2017). Using the ITE rate, the project would produce an estimated 244 total daily trips. This is a conservative estimate, as only 18 employees are anticipated on the project site every 24 hours. Commuting distance was assumed to be 7.3 miles each way (CalEEMod default). CalEEMod calculates emissions of CO_2 and CH_4 generated by project-generated vehicle trips (i.e., mobile sources).

Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using guidance from CARB and the EMFAC2017 Emissions Inventory for the BAAQMD region for the year 2030 (the next State milestone target year for GHG emission reductions) using the EMFAC2011 categories (CARB 2018 and 2019b). See Appendix F for N_2O emissions calculations

Stationary Source

To account for GHG emissions generated during generator maintenance testing activities, it was assumed that each backup diesel generator would be operated for up to 50 hours per year, the maximum allowed operational time under BAAQMD stationary source permits. GHG emissions associated with the combustion of diesel fuel by the generators was calculated based on hourly fuel consumption conservatively assuming a 100% load factor (i.e., 214 gallons/hour). This results in 192,800 gallons of diesel fuel consumed annually for all 16 generators. GHG emissions as CO_2e were estimated based on the annual fuel consumption and U.S. EPA's recommended emission factors for CO_2, CH_4 and N_2O for distillate fuel oil number 2, as defined in the Code of Federal Regulations Title 40 Part 98.

3.2.3 Project Impacts

Threshold 1:	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact GHG-1 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT WOULD GENERATE TEMPORARY AND LONG-TERM INCREASES IN GHG EMISSIONS. TOTAL NET EMISSIONS ASSOCIATED WITH THE PROJECT ARE ESTIMATED TO BE APPROXIMATELY 34,060 MT OF CO_2E PER YEAR. THE PROJECT WOULD BE CONSISTENT WITH THE FRAMEWORK OF THE CITY OF SANTA CLARA CAP AND WOULD BE SERVED BY SVP, AN ENERGY UTILITY THAT IS EXCEEDING STATE-MANDATED GHG REDUCTION TARGETS. THEREFORE, THE PROPOSED PROJECT WOULD HAVE A LESS THAN SIGNIFICANT IMPACT RELATED TO GHG EMISSIONS.

Construction Emissions

Project-related construction emissions are confined to a relatively short period in relation to the overall life of the proposed project. Therefore, construction-related GHG emissions were amortized over a 30-year period to determine the annual construction-related GHG emissions over the life of

the project. Table 14 shows that project construction would result in an average of approximately 18.5 MT of CO_2e per year. GHG emissions associated with construction were calculated to be approximately 554 MT of CO_2e for the project construction period. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, although the BAAQMD recommends quantifying emissions and disclosing GHG construction emissions.

Table 14 Estimated Construction GHG Emissions

Construction Year	Project Emissions MT/yr CO_2e
2020	149.6
2021	404.7
Total	554.3
Total Amortized over 30 Years	18.5

MT/yr CO_2e = metric tons of carbon dioxide equivalent per year
See Appendix A for CalEEMod worksheets.

Operation Emissions

GHG emissions from the project operation would consist of emissions from employee vehicle trips to and from the project site, water consumption for cooling the facility, electricity demand, area (landscaping), and solid waste generation.

Table 15 summarizes the long-term GHG emissions generated by the project from operations and construction of the proposed project.

Table 15 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Project Emissions (MT of CO_2e)
Baseline Emissions	
Existing Land Use	544.3
Project Emissions	
Construction (Amortized Annual)	18.5
Operational	
Area	<0.1
Solid Waste	38.5
Water	10.4
Electricity Usage	
SVP-Provided Electricity	34,521.4
Mobile	
CO_2 and CH_4	63.5
N_2O	2.9
Total Project	34,655.2
Net Project Emissions	
Project Minus Baseline	34,110.9

SVP = Silicon Valley Power
See Appendices A and B for CalEEMod results, Appendix C for backup diesel generator emissions, Appendix E for electricity usage calculations, and Appendix F for N_2O mobile calculations.

As shown in Table 15, total net emissions associated with the project are estimated to be approximately 34,111 MT of CO_2e per year. This quantitative estimate is shown for informational purposes, and is not used to determine the significance of the project's GHG emissions.

The vast majority (99.6 percent) of the project's GHG emissions would be generated by the building's electricity demand. This analysis assesses the consistency of the project with local and statewide GHG reduction targets and energy efficiency measures. The project building would be designed to be energy efficient, with an average of five kWh per rack and a PUE rating of 1.35. The closer the PUE is to a value of 1, the more efficient data center operations are. A PUE between 1.2 and 1.5 is considered "very efficient." Therefore, the proposed project is considered to be very energy efficient.

Per the City of Santa Clara CAP (2013), new data centers with an average rack power rating of 15 kW or more are required to identify and implement cost-effective and energy-efficient practices. The proposed project would have an average rack power rating of five kW, and a "very efficient" PUE. Therefore, the project would be considered to be energy efficient and would be consistent with the CAP's measure pertaining to data centers.

The project would be served by SVP. Currently, SVP's power mix is comprised of 38 percent renewable energy sources. SVP's energy intensity factor is therefore considerably lower than the California statewide average. The preferred plan outlined in SVP's 2018 Integrated Resource Plan meets and exceeds the 2030 renewable energy target set forth by SB 100.

Table 16 summarizes SVP's 2019 and 2030 energy intensity factors as compared to the California statewide electrical grid average, and demonstrates the reduction effect of SVP's renewable portfolio on the project's GHG emissions.

Table 16 Energy Intensity Factors and Project-Generated GHG Emissions

Utility	Energy Intensity Factor (MT/MWh)	Project's Annual CO_2e Emissions (MT/year) from Electricity Demand[1]
California-wide average (eGRID 2016)	0.264	110,985.7
Silicon Valley Power (2019 Factor)	0.155	65,048.3
Silicon Valley Power (2030 Factor)	0.082	34,521.4

MT = metric tons; MWh = megawatt hours; CO_2e = carbon dioxide equivalent
[1] Project's annual emissions calculated using the project's annual electricity demand of 420,480 MWh and the respective energy intensity factor.
See Appendix E for calculations.

SVP is currently exceeding and is projected to continue exceeding California's statewide GHG emissions reductions targets. Therefore, by sourcing electricity from SVP, the project would minimize its GHG emissions and maintain consistency with statewide GHG reduction targets established by SB 100. This impact would be less than significant.

STATIONARY SOURCE EMISSIONS

Per 2017 BAAQMD *CEQA Guidelines*, new stationary sources should be evaluated separately from project operation emissions associated with land use. Therefore, GHG emissions from the 16 backup diesel generators are evaluated against a separate, stand-alone stationary source significance threshold established by BAAQMD. Stationary sources are not considered "cumulatively considerable" from a land use perspective if the stationary sources comply with the 10,000 MT CO_2e per year threshold. Therefore, the significance threshold of 10,000 MT CO_2e per year is used to determine the significance of the GHG emissions generated by the diesel generators.

As shown in Table 17, the total emissions generated from the operation of all 16 generators at the project site for 50 hours per year would result in approximately 8,541 MT of CO_2e. Therefore, the operation of all 16 generators for 50 hours per year would comply with the BAAQMD's stationary source threshold of 10,000 MT CO_2e and would not be considered cumulatively considerable.[4] This impact would be less than significant.

[4] In addition, if Mitigation Measure AQ-1 Option 1 is implemented to reduce NO_X emissions, non-emergency operation of diesel generators would be limited to 18 hours per year. Under this scenario, total annual GHG emissions from all 16 generators would be less than 2,733 MT CO_2e per year. This impact would be less than significant.

Table 17 Stationary Source Annual Emissions of GHGs

Emission Source	Annual Emissions (CO_2e) in MTs
Single Generator	533.8
Total[1]	**8,541.1**
BAAQMD Stationary Source Threshold	10,000
Exceeds Threshold?	No

See Appendix C for calculation of GHGs from the stationary sources.

[1.] Total annual emissions from diesel fuel combustion is based the operation of all 16 generators for 50 hours per year.

Threshold 2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact GHG-2 THE PROJECT WOULD BE CONSISTENT WITH THE CITY OF SANTA CLARA GENERAL PLAN AND THE CITY OF SANTA CLARA CLIMATE ACTION PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Several plans have been adopted to reduce GHG emissions in California generally and in the City of Santa Clara specifically. The proposed project would be subject to the latest iteration of the Title 24 standards, which are designed to conserve energy use and maximum energy efficiency. The project's consistency with the City of Santa Clara General Plan and the City of Santa Clara CAP are discussed below.

Table 18 Project Consistency with City of Santa Clara General Plan and CAP

Goals, Targets, and Policies	Consistency
Santa Clara General Plan	
Goal 5.10.3-G1. Energy supply and distribution maximizes the use of renewable resources. ▪ **Policy 5.10.3-P1.** Promote the use of renewable energy resources, conservation and recycling programs.	**Consistent.** The proposed project would source its electricity from SVP, which has a renewable energy procurement portfolio of 38 percent renewable resources. SVP would be subject to the provisions of SB 100, which requires utility providers to increase their renewable energy procurement portfolios to 60 percent by 2030 and 100 percent by 2045. Therefore, the project would be consistent with Goal 5.10.3-G1.
Goal 5.10.3-G2. Implementation of energy conservation measures to reduce consumption. ▪ **Policy 5.10.3-P4.** Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities. ▪ **Policy 5.10.3-P5.** Reduce energy consumption through sustainable construction practices, materials and recycling. **Policy 5.10.3-P6.** Promote sustainable buildings and land planning for all new development, including programs that	**Consistent.** The proposed building would be required to comply with Title 24 standards, thereby increasing the energy conservation achieved by building design. The project would also be required to comply with the requirements of 2019 CALGreen, which mandate a minimum diversion rate of 65 percent for construction and demolition waste. Furthermore, the project would include high-efficiency plumbing fixtures, which would reduce water consumption and associated energy use. Therefore, the project would be consistent with Goal 5.10.3-G3, Policy 5.10.3-P4, Policy 5.10.3-P5, and Policy 5.10.3-P6.

Goals, Targets, and Policies	Consistency
reduce energy and water consumption in new development.	
Santa Clara Climate Action Plan	
Focus Area 2: Energy Efficiency Programs **Goal**: Maximize the efficient use of energy throughout the community. **2.3.** Encourage new data centers with an average rack power rating of 15 kW or more to identify and implement cost-effective and energy-efficient practices.	**Consistent**. The PUE is calculated by dividing the total demand of the data center by the critical IT load (42U 2019). The closer the PUE is to a value of 1, the more efficient data center operations are. The facility would be designed to achieve an average of 5 kWh per rack, and a PUE rating of 1.35. A PUE between 1.2 and 1.5 is considered "very efficient." Therefore, the project would implement energy-efficient practices that maximize the efficient use of energy and would be consistent with Policy 2.3.
Source: City of Santa Clara 2014, 2013	

The project would be consistent with the above goals, targets, and policies. Therefore, the project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Impacts would be less than significant.

4 Conclusions

Air Quality

Project operation of the backup diesel generators for 50 hours per year (the permitting maximum) has the potential to exceed BAAQMD significance thresholds for NO_x. Mitigation Measure AQ-1 would be applied to reduce annual and daily NO_x emissions from stationary sources on-site during operation to a less-than-significant level.

Project construction and operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment (i.e., ozone, PM_{10}, $PM_{2.5}$) and would not expose sensitive receptors to substantial pollutant concentrations from CO hotspots and TAC emissions. Finally, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Greenhouse Gas

Total net emissions associated with the project are estimated to be approximately 34,111 MT of CO_2e per year. The project's worst-case yearly energy consumption would be 420,480 MWh. Per the City of Santa Clara CAP (2013), new data centers with an average rack power rating of 15 kW or more are required to identify and implement cost-effective and energy-efficient practices. The proposed project would have an average rack power rating of five kW, and a "very efficient" PUE. Therefore, the project would be considered to be energy efficient and would be consistent with the City of Santa Clara CAP measure pertaining to data centers. In addition, SVP is currently exceeding and projected to continue exceeding California's statewide GHG emissions reductions targets. By sourcing electricity from SVP, the project would minimize its GHG emissions. Non-stationary source-generated GHG emissions would be less than significant. In addition, stationary source GHG emissions from the 16 backup generators would not exceed BAAQMD thresholds and would be less than significant.

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Appendix A

CalEEMod Modeling Output – Project Emissions

CoreSite - Santa Clara Data Center SV9

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	61.66	1000sqft	1.42	246,660.00	0
Parking Lot	27.00	Space	0.24	10,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	164.4	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - User defined intensity factors entered for Silicon Valley Power based on 2030 aggregated carbon intensity of 164.4 lbs of CO2 per MWh (based on 2018 Integrated Resource Plan)

Land Use - Based on PD

Construction Phase - Stretched out building construction phase to account for construction ending in November 2021, as per applicant info

Demolition - From data request

Architectural Coating - Per Regulation 8 BAAQMD Architecutral Coatings for nonresidential flat coatings 100 g/L

Vehicle Trips - Assumed 244 trips per day (per ITE) (244/246.666 = 0.989). Assumed all home-to-work trips. Assumed 7.3 mile length.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Per Regulation 8 BAAQMD Architecutral Coatings for nonresidential flat coatings 100 g/L

Energy Use -

Water And Wastewater - Per applicant-provided info, project operation would require 18 acre-feet (5.9 million gallons) per year

Construction Off-road Equipment Mitigation - BAAQMD CEQA Air Quality recommended measures

Mobile Land Use Mitigation -

Area Mitigation - BAAQMD Regulation 8, Rule 3

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	150
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	280.00
tblLandUse	LandUseSquareFeet	61,660.00	246,660.00
tblProjectCharacteristics	CO2IntensityFactor	0	164.4
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	HW_TL	0.00	7.30
tblVehicleTrips	HW_TTP	0.00	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.99
tblVehicleTrips	SU_TR	0.68	0.99
tblVehicleTrips	WD_TR	6.97	0.99
tblWater	IndoorWaterUseRate	14,258,875.00	5,865,318.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1062	0.9109	0.7070	1.6900e-003	0.0805	0.0394	0.1199	0.0224	0.0376	0.0600	0.0000	149.0952	149.0952	0.0200	0.0000	149.5948
2021	1.3996	2.0361	1.8467	4.6000e-003	0.1244	0.0788	0.2032	0.0338	0.0760	0.1098	0.0000	403.5785	403.5785	0.0449	0.0000	404.7011
Maximum	**1.3996**	**2.0361**	**1.8467**	**4.6000e-003**	**0.1244**	**0.0788**	**0.2032**	**0.0338**	**0.0760**	**0.1098**	**0.0000**	**403.5785**	**403.5785**	**0.0449**	**0.0000**	**404.7011**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1062	0.9109	0.7070	1.6900e-003	0.0573	0.0394	0.0967	0.0158	0.0376	0.0534	0.0000	149.0952	149.0952	0.0200	0.0000	149.5947
2021	1.3996	2.0361	1.8467	4.6000e-003	0.1244	0.0788	0.2032	0.0338	0.0760	0.1098	0.0000	403.5782	403.5782	0.0449	0.0000	404.7009
Maximum	**1.3996**	**2.0361**	**1.8467**	**4.6000e-003**	**0.1244**	**0.0788**	**0.2032**	**0.0338**	**0.0760**	**0.1098**	**0.0000**	**403.5782**	**403.5782**	**0.0449**	**0.0000**	**404.7009**

	ROG	**NOx**	**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**	**11.33**	**0.00**	**7.19**	**11.76**	**0.00**	**3.89**	**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	**9-1-2020**	**11-30-2020**	0.7594	0.7594
2	**12-1-2020**	**2-28-2021**	0.6829	0.6829
3	**3-1-2021**	**5-31-2021**	0.6738	0.6738
4	**6-1-2021**	**8-31-2021**	0.6726	0.6726
5	**9-1-2021**	**9-30-2021**	0.2193	0.2193
		Highest	0.7594	0.7594

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0787	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5800e-003	1.5800e-003	0.0000	0.0000	1.6900e-003
Energy	0.0351	0.3190	0.2679	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	499.4453	499.4453	6.6600e-003	6.3700e-003	501.5088
Mobile	0.0160	0.0804	0.1884	6.9000e-004	0.0603	6.2000e-004	0.0609	0.0162	5.8000e-004	0.0168	0.0000	63.4246	63.4246	2.2700e-003	0.0000	63.4813
Waste						0.0000	0.0000		0.0000	0.0000	15.5207	0.0000	15.5207	0.9173	0.0000	38.4519
Water						0.0000	0.0000		0.0000	0.0000	1.8608	2.3667	4.2275	0.1911	4.5100e-003	10.3503
Total	**1.1297**	**0.3994**	**0.4572**	**2.6000e-003**	**0.0603**	**0.0249**	**0.0852**	**0.0162**	**0.0248**	**0.0410**	**17.3815**	**565.2381**	**582.6196**	**1.1173**	**0.0109**	**613.7939**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0930	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5800e-003	1.5800e-003	0.0000	0.0000	1.6900e-003
Energy	0.0351	0.3190	0.2679	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	499.4453	499.4453	6.6600e-003	6.3700e-003	501.5088
Mobile	0.0160	0.0804	0.1884	6.9000e-004	0.0603	6.2000e-004	0.0609	0.0162	5.8000e-004	0.0168	0.0000	63.4246	63.4246	2.2700e-003	0.0000	63.4813
Waste						0.0000	0.0000		0.0000	0.0000	15.5207	0.0000	15.5207	0.9173	0.0000	38.4519
Water						0.0000	0.0000		0.0000	0.0000	1.8608	2.3667	4.2275	0.1911	4.5100e-003	10.3503
Total	**1.1440**	**0.3994**	**0.4572**	**2.6000e-003**	**0.0603**	**0.0249**	**0.0852**	**0.0162**	**0.0248**	**0.0410**	**17.3815**	**565.2381**	**582.6196**	**1.1173**	**0.0109**	**613.7939**

	ROG	**NOx**	**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	**-1.26**	**0.00**	**0.00**	**0.00**	**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	9/1/2020	9/28/2020	5	20	
2	Site Preparation	Site Preparation	9/29/2020	9/30/2020	5	2	
3	Grading	Grading	10/1/2020	10/6/2020	5	4	
4	Building Construction	Building Construction	10/7/2020	11/2/2021	5	280	
5	Paving	Paving	11/3/2021	11/16/2021	5	10	
6	Architectural Coating	Architectural Coating	11/17/2021	11/30/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.24

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 369,990; Non-Residential Outdoor: 123,330; Striped Parking Area: 648 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	246.00	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
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	108.00	42.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0266	0.0000	0.0266	4.0200e-003	0.0000	4.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**0.0266**	**0.0115**	**0.0381**	**4.0200e-003**	**0.0108**	**0.0148**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0300e-003	0.0360	7.2300e-003	1.0000e-004	2.0800e-003	1.2000e-004	2.1900e-003	5.7000e-004	1.1000e-004	6.8000e-004	0.0000	9.4264	9.4264	4.9000e-004	0.0000	9.4385
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.1000e-004	3.1900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9000	0.9000	2.0000e-005	0.0000	0.9005
Total	**1.4600e-003**	**0.0363**	**0.0104**	**1.1000e-004**	**3.1100e-003**	**1.3000e-004**	**3.2200e-003**	**8.4000e-004**	**1.2000e-004**	**9.6000e-004**	**0.0000**	**10.3264**	**10.3264**	**5.1000e-004**	**0.0000**	**10.3390**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0120	0.0000	0.0120	1.8100e-003	0.0000	1.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**0.0120**	**0.0115**	**0.0235**	**1.8100e-003**	**0.0108**	**0.0126**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0300e-003	0.0360	7.2300e-003	1.0000e-004	2.0800e-003	1.2000e-004	2.1900e-003	5.7000e-004	1.1000e-004	6.8000e-004	0.0000	9.4264	9.4264	4.9000e-004	0.0000	9.4385
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.1000e-004	3.1900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9000	0.9000	2.0000e-005	0.0000	0.9005
Total	**1.4600e-003**	**0.0363**	**0.0104**	**1.1000e-004**	**3.1100e-003**	**1.3000e-004**	**3.2200e-003**	**8.4000e-004**	**1.2000e-004**	**9.6000e-004**	**0.0000**	**10.3264**	**10.3264**	**5.1000e-004**	**0.0000**	**10.3390**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**1.6300e-003**	**0.0184**	**7.7100e-003**	**2.0000e-005**	**5.8000e-003**	**8.2000e-004**	**6.6200e-003**	**2.9500e-003**	**7.6000e-004**	**3.7100e-003**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0554	0.0554	0.0000	0.0000	0.0554
Total	**3.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0554**	**0.0554**	**0.0000**	**0.0000**	**0.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6100e-003	0.0000	2.6100e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**1.6300e-003**	**0.0184**	**7.7100e-003**	**2.0000e-005**	**2.6100e-003**	**8.2000e-004**	**3.4300e-003**	**1.3300e-003**	**7.6000e-004**	**2.0900e-003**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0554	0.0554	0.0000	0.0000	0.0554
Total	**3.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0554**	**0.0554**	**0.0000**	**0.0000**	**0.0554**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**2.7000e-003**	**0.0302**	**0.0129**	**3.0000e-005**	**9.8300e-003**	**1.3700e-003**	**0.0112**	**5.0500e-003**	**1.2600e-003**	**6.3100e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1108	0.1108	0.0000	0.0000	0.1108
Total	**5.0000e-005**	**4.0000e-005**	**3.9000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1108**	**0.1108**	**0.0000**	**0.0000**	**0.1108**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.4200e-003	0.0000	4.4200e-003	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**2.7000e-003**	**0.0302**	**0.0129**	**3.0000e-005**	**4.4200e-003**	**1.3700e-003**	**5.7900e-003**	**2.2700e-003**	**1.2600e-003**	**3.5300e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1108	0.1108	0.0000	0.0000	0.1108
Total	**5.0000e-005**	**4.0000e-005**	**3.9000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1108**	**0.1108**	**0.0000**	**0.0000**	**0.1108**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0630	0.4584	0.4088	6.8000e-004		0.0247	0.0247		0.0238	0.0238	0.0000	56.2781	56.2781	0.0105	0.0000	56.5392
Total	**0.0630**	**0.4584**	**0.4088**	**6.8000e-004**		**0.0247**	**0.0247**		**0.0238**	**0.0238**	**0.0000**	**56.2781**	**56.2781**	**0.0105**	**0.0000**	**56.5392**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0400e-003	0.1502	0.0378	3.5000e-004	8.5400e-003	7.3000e-004	9.2700e-003	2.4700e-003	7.0000e-004	3.1700e-003	0.0000	34.0889	34.0889	1.7600e-003	0.0000	34.1328
Worker	0.0111	7.9400e-003	0.0822	2.6000e-004	0.0265	1.8000e-004	0.0266	7.0400e-003	1.6000e-004	7.2000e-003	0.0000	23.1776	23.1776	5.6000e-004	0.0000	23.1916
Total	**0.0161**	**0.1582**	**0.1200**	**6.1000e-004**	**0.0350**	**9.1000e-004**	**0.0359**	**9.5100e-003**	**8.6000e-004**	**0.0104**	**0.0000**	**57.2665**	**57.2665**	**2.3200e-003**	**0.0000**	**57.3244**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0630	0.4584	0.4088	6.8000e-004		0.0247	0.0247		0.0238	0.0238	0.0000	56.2780	56.2780	0.0105	0.0000	56.5392
Total	**0.0630**	**0.4584**	**0.4088**	**6.8000e-004**		**0.0247**	**0.0247**		**0.0238**	**0.0238**	**0.0000**	**56.2780**	**56.2780**	**0.0105**	**0.0000**	**56.5392**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0400e-003	0.1502	0.0378	3.5000e-004	8.5400e-003	7.3000e-004	9.2700e-003	2.4700e-003	7.0000e-004	3.1700e-003	0.0000	34.0889	34.0889	1.7600e-003	0.0000	34.1328
Worker	0.0111	7.9400e-003	0.0822	2.6000e-004	0.0265	1.8000e-004	0.0266	7.0400e-003	1.6000e-004	7.2000e-003	0.0000	23.1776	23.1776	5.6000e-004	0.0000	23.1916
Total	**0.0161**	**0.1582**	**0.1200**	**6.1000e-004**	**0.0350**	**9.1000e-004**	**0.0359**	**9.5100e-003**	**8.6000e-004**	**0.0104**	**0.0000**	**57.2665**	**57.2665**	**2.3200e-003**	**0.0000**	**57.3244**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1976	1.4863	1.4060	2.4000e-003		0.0746	0.0746		0.0720	0.0720	0.0000	197.8869	197.8869	0.0353	0.0000	198.7701
Total	**0.1976**	**1.4863**	**1.4060**	**2.4000e-003**		**0.0746**	**0.0746**		**0.0720**	**0.0720**	**0.0000**	**197.8869**	**197.8869**	**0.0353**	**0.0000**	**198.7701**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0145	0.4782	0.1194	1.2400e-003	0.0300	1.0400e-003	0.0311	8.6800e-003	9.9000e-004	9.6800e-003	0.0000	118.7277	118.7277	5.8400e-003	0.0000	118.8736
Worker	0.0361	0.0249	0.2640	8.7000e-004	0.0930	6.1000e-004	0.0936	0.0248	5.6000e-004	0.0253	0.0000	78.6358	78.6358	1.7600e-003	0.0000	78.6799
Total	**0.0507**	**0.5031**	**0.3834**	**2.1100e-003**	**0.1230**	**1.6500e-003**	**0.1247**	**0.0334**	**1.5500e-003**	**0.0350**	**0.0000**	**197.3635**	**197.3635**	**7.6000e-003**	**0.0000**	**197.5535**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1976	1.4863	1.4060	2.4000e-003		0.0746	0.0746		0.0720	0.0720	0.0000	197.8867	197.8867	0.0353	0.0000	198.7699
Total	**0.1976**	**1.4863**	**1.4060**	**2.4000e-003**		**0.0746**	**0.0746**		**0.0720**	**0.0720**	**0.0000**	**197.8867**	**197.8867**	**0.0353**	**0.0000**	**198.7699**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.4782	0.1194	1.2400e-003	0.0300	1.0400e-003	0.0311	8.6800e-003	9.9000e-004	9.6800e-003	0.0000	118.7277	118.7277	5.8400e-003	0.0000	118.8736
Worker	0.0361	0.0249	0.2640	8.7000e-004	0.0930	6.1000e-004	0.0936	0.0248	5.6000e-004	0.0253	0.0000	78.6358	78.6358	1.7600e-003	0.0000	78.6799
Total	**0.0507**	**0.5031**	**0.3834**	**2.1100e-003**	**0.1230**	**1.6500e-003**	**0.1247**	**0.0334**	**1.5500e-003**	**0.0350**	**0.0000**	**197.3635**	**197.3635**	**7.6000e-003**	**0.0000**	**197.5535**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	3.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1800e-003**	**0.0387**	**0.0443**	**7.0000e-005**		**2.0800e-003**	**2.0800e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**5.8825**	**5.8825**	**1.8600e-003**	**0.0000**	**5.9291**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4600e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4342	0.4342	1.0000e-005	0.0000	0.4344
Total	**2.0000e-004**	**1.4000e-004**	**1.4600e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4342**	**0.4342**	**1.0000e-005**	**0.0000**	**0.4344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	3.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1800e-003**	**0.0387**	**0.0443**	**7.0000e-005**		**2.0800e-003**	**2.0800e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**5.8825**	**5.8825**	**1.8600e-003**	**0.0000**	**5.9291**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4600e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4342	0.4342	1.0000e-005	0.0000	0.4344
Total	**2.0000e-004**	**1.4000e-004**	**1.4600e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4342**	**0.4342**	**1.0000e-005**	**0.0000**	**0.4344**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**1.1466**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.3000e-004	2.4700e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7348	0.7348	2.0000e-005	0.0000	0.7352
Total	**3.4000e-004**	**2.3000e-004**	**2.4700e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7348**	**0.7348**	**2.0000e-005**	**0.0000**	**0.7352**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**1.1466**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.3000e-004	2.4700e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7348	0.7348	2.0000e-005	0.0000	0.7352
Total	**3.4000e-004**	**2.3000e-004**	**2.4700e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7348**	**0.7348**	**2.0000e-005**	**0.0000**	**0.7352**

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	0.0160	0.0804	0.1884	6.9000e-004	0.0603	6.2000e-004	0.0609	0.0162	5.8000e-004	0.0168	0.0000	63.4246	63.4246	2.2700e-003	0.0000	63.4813
Unmitigated	0.0160	0.0804	0.1884	6.9000e-004	0.0603	6.2000e-004	0.0609	0.0162	5.8000e-004	0.0168	0.0000	63.4246	63.4246	2.2700e-003	0.0000	63.4813

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	60.98	60.98	60.98	162,041	162,041
Parking Lot	0.00	0.00	0.00		
Total	60.98	60.98	60.98	162,041	162,041

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	0.00	0.00	0.00	100	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
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	152.2129	152.2129	0.0000	0.0000	152.2129
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	152.2129	152.2129	0.0000	0.0000	152.2129
NaturalGas Mitigated	0.0351	0.3190	0.2679	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	347.2325	347.2325	6.6600e-003	6.3700e-003	349.2959
NaturalGas Unmitigated	0.0351	0.3190	0.2679	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	347.2325	347.2325	6.6600e-003	6.3700e-003	349.2959

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	6.50689e+006	0.0351	0.3190	0.2679	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	347.2325	347.2325	6.6600e-003	6.3700e-003	349.2959
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		**0.0351**	**0.3190**	**0.2679**	**1.9100e-003**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**347.2325**	**347.2325**	**6.6600e-003**	**6.3700e-003**	**349.2959**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	6.50689e+006	0.0351	0.3190	0.2679	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	347.2325	347.2325	6.6600e-003	6.3700e-003	349.2959
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		**0.0351**	**0.3190**	**0.2679**	**1.9100e-003**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**347.2325**	**347.2325**	**6.6600e-003**	**6.3700e-003**	**349.2959**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	2.03741e+006	151.9310	0.0000	0.0000	151.9310
Parking Lot	3780	0.2819	0.0000	0.0000	0.2819
Total		**152.2129**	**0.0000**	**0.0000**	**152.2129**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	2.03741e+006	151.9310	0.0000	0.0000	151.9310
Parking Lot	3780	0.2819	0.0000	0.0000	0.2819
Total		**152.2129**	**0.0000**	**0.0000**	**152.2129**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0930	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5800e-003	1.5800e-003	0.0000	0.0000	1.6900e-003
Unmitigated	1.0787	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5800e-003	1.5800e-003	0.0000	0.0000	1.6900e-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	0.1146					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9640					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	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5800e-003	1.5800e-003	0.0000	0.0000	1.6900e-003
Total	**1.0787**	**1.0000e-005**	**8.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5800e-003**	**1.5800e-003**	**0.0000**	**0.0000**	**1.6900e-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	0.1288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9640					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	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5800e-003	1.5800e-003	0.0000	0.0000	1.6900e-003
Total	**1.0930**	**1.0000e-005**	**8.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5800e-003**	**1.5800e-003**	**0.0000**	**0.0000**	**1.6900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.2275	0.1911	4.5100e-003	10.3503
Unmitigated	4.2275	0.1911	4.5100e-003	10.3503

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.86532 / 0	4.2275	0.1911	4.5100e-003	10.3503
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.2275**	**0.1911**	**4.5100e-003**	**10.3503**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.86532 / 0	4.2275	0.1911	4.5100e-003	10.3503
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.2275**	**0.1911**	**4.5100e-003**	**10.3503**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.5207	0.9173	0.0000	38.4519
Unmitigated	15.5207	0.9173	0.0000	38.4519

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	76.46	15.5207	0.9173	0.0000	38.4519
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**15.5207**	**0.9173**	**0.0000**	**38.4519**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	76.46	15.5207	0.9173	0.0000	38.4519
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**15.5207**	**0.9173**	**0.0000**	**38.4519**

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

CoreSite - Santa Clara Data Center SV9

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	61.66	1000sqft	1.42	246,660.00	0
Parking Lot	27.00	Space	0.24	10,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	164.4	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - User defined intensity factors entered for Silicon Valley Power based on 2030 aggregated carbon intensity of 164.4 lbs of CO2 per MWh (based on 2018 Integrated Resource Plan)

Land Use - Based on PD

Construction Phase - Stretched out building construction phase to account for construction ending in November 2021, as per applicant info

Demolition - From data request

Architectural Coating - Per Regulation 8 BAAQMD Architecutral Coatings for nonresidential flat coatings 100 g/L

Vehicle Trips - Assumed 244 trips per day (per ITE) (244/246.666 = 0.989). Assumed all home-to-work trips. Assumed 7.3 mile length.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Per Regulation 8 BAAQMD Architecutral Coatings for nonresidential flat coatings 100 g/L

Energy Use -

Water And Wastewater - Per applicant-provided info, project operation would require 18 acre-feet (5.9 million gallons) per year

Construction Off-road Equipment Mitigation - BAAQMD CEQA Air Quality recommended measures

Mobile Land Use Mitigation -

Area Mitigation - BAAQMD Regulation 8, Rule 3

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	150
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	280.00
tblLandUse	LandUseSquareFeet	61,660.00	246,660.00
tblProjectCharacteristics	CO2IntensityFactor	0	164.4
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	HW_TL	0.00	7.30
tblVehicleTrips	HW_TTP	0.00	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.99
tblVehicleTrips	SU_TR	0.68	0.99
tblVehicleTrips	WD_TR	6.97	0.99
tblWater	IndoorWaterUseRate	14,258,875.00	5,865,318.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2020	2.5651	24.4969	17.2275	0.0425	5.8653	1.1647	6.6867	2.9711	1.0878	3.7268	0.0000	4,112.7720	4,112.7720	0.6519	0.0000	4,124.1016
2021	229.3940	18.1793	16.5757	0.0421	1.1715	0.6993	1.8708	0.3172	0.6749	0.9921	0.0000	4,070.1622	4,070.1622	0.4334	0.0000	4,080.9959
Maximum	**229.3940**	**24.4969**	**17.2275**	**0.0425**	**5.8653**	**1.1647**	**6.6867**	**2.9711**	**1.0878**	**3.7268**	**0.0000**	**4,112.7720**	**4,112.7720**	**0.6519**	**0.0000**	**4,124.1016**

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	lb/day										lb/day					
2020	2.5651	24.4969	17.2275	0.0425	2.6755	1.1647	3.4969	1.3466	1.0878	2.1023	0.0000	4,112.7720	4,112.7720	0.6519	0.0000	4,124.1016
2021	229.3940	18.1793	16.5757	0.0421	1.1715	0.6993	1.8708	0.3172	0.6749	0.9921	0.0000	4,070.1622	4,070.1622	0.4334	0.0000	4,080.9959
Maximum	**229.3940**	**24.4969**	**17.2275**	**0.0425**	**2.6755**	**1.1647**	**3.4969**	**1.3466**	**1.0878**	**2.1023**	**0.0000**	**4,112.7720**	**4,112.7720**	**0.6519**	**0.0000**	**4,124.1016**

	ROG	**NOx**	**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**	**45.33**	**0.00**	**37.27**	**49.40**	**0.00**	**34.43**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	5.9109	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Energy	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
Mobile	0.0999	0.4276	1.0847	4.0200e-003	0.3443	3.4200e-003	0.3477	0.0921	3.2000e-003	0.0953		406.5153	406.5153	0.0139		406.8624
Total	**6.2030**	**2.1755**	**2.5619**	**0.0145**	**0.3443**	**0.1363**	**0.4805**	**0.0921**	**0.1361**	**0.2282**		**2,503.8404**	**2,503.8404**	**0.0541**	**0.0385**	**2,516.6519**

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	lb/day										lb/day					
Area	5.9892	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Energy	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
Mobile	0.0999	0.4276	1.0847	4.0200e-003	0.3443	3.4200e-003	0.3477	0.0921	3.2000e-003	0.0953		406.5153	406.5153	0.0139		406.8624
Total	**6.2813**	**2.1755**	**2.5619**	**0.0145**	**0.3443**	**0.1363**	**0.4805**	**0.0921**	**0.1361**	**0.2282**		**2,503.8404**	**2,503.8404**	**0.0541**	**0.0385**	**2,516.6519**

	ROG	NOx	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	**-1.26**	**0.00**	**0.00**	**0.00**	**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	9/1/2020	9/28/2020	5	20	
2	Site Preparation	Site Preparation	9/29/2020	9/30/2020	5	2	
3	Grading	Grading	10/1/2020	10/6/2020	5	4	
4	Building Construction	Building Construction	10/7/2020	11/2/2021	5	280	
5	Paving	Paving	11/3/2021	11/16/2021	5	10	
6	Architectural Coating	Architectural Coating	11/17/2021	11/30/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.24

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 369,990; Non-Residential Outdoor: 123,330; Striped Parking Area: 648 (Architectural Coating – sqft)

OffRoad Equipment

CoreSite - Santa Clara Data Center SV9 - Bay Area AQMD Air District, Summer

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	246.00	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
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	108.00	42.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6578	0.0000	2.6578	0.4024	0.0000	0.4024			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**2.6578**	**1.1525**	**3.8102**	**0.4024**	**1.0761**	**1.4786**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1015	3.5233	0.7002	9.7900e-003	0.2149	0.0115	0.2264	0.0589	0.0110	0.0699		1,046.4638	1,046.4638	0.0524		1,047.7725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0274	0.3488	1.0700e-003	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		106.7010	106.7010	2.5700e-003		106.7652
Total	**0.1467**	**3.5506**	**1.0490**	**0.0109**	**0.3217**	**0.0122**	**0.3339**	**0.0872**	**0.0117**	**0.0989**		**1,153.1647**	**1,153.1647**	**0.0549**		**1,154.5377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1960	0.0000	1.1960	0.1811	0.0000	0.1811			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**1.1960**	**1.1525**	**2.3485**	**0.1811**	**1.0761**	**1.2572**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1015	3.5233	0.7002	9.7900e-003	0.2149	0.0115	0.2264	0.0589	0.0110	0.0699		1,046.4638	1,046.4638	0.0524		1,047.7725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0274	0.3488	1.0700e-003	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		106.7010	106.7010	2.5700e-003		106.7652
Total	**0.1467**	**3.5506**	**1.0490**	**0.0109**	**0.3217**	**0.0122**	**0.3339**	**0.0872**	**0.0117**	**0.0989**		**1,153.1647**	**1,153.1647**	**0.0549**		**1,154.5377**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553		1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**5.7996**	**0.8210**	**6.6205**	**2.9537**	**0.7553**	**3.7090**		**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.0278**	**0.0168**	**0.2146**	**6.6000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**65.6621**	**65.6621**	**1.5800e-003**		**65.7017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6098	0.0000	2.6098	1.3292	0.0000	1.3292			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553	0.0000	1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**2.6098**	**0.8210**	**3.4308**	**1.3292**	**0.7553**	**2.0844**	**0.0000**	**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.0278**	**0.0168**	**0.2146**	**6.6000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**65.6621**	**65.6621**	**1.5800e-003**		**65.7017**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**4.9143**	**0.6844**	**5.5986**	**2.5256**	**0.6296**	**3.1552**		**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.0278**	**0.0168**	**0.2146**	**6.6000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**65.6621**	**65.6621**	**1.5800e-003**		**65.7017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2114	0.0000	2.2114	1.1365	0.0000	1.1365			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296	0.0000	1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**2.2114**	**0.6844**	**2.8958**	**1.1365**	**0.6296**	**1.7662**	**0.0000**	**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
Total	**0.0278**	**0.0168**	**0.2146**	**6.6000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**65.6621**	**65.6621**	**1.5800e-003**		**65.7017**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**		**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1592	4.7864	1.1417	0.0116	0.2843	0.0235	0.3078	0.0818	0.0225	0.1043		1,225.1738	1,225.1738	0.0603		1,226.6822
Worker	0.3754	0.2273	2.8977	8.8900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		886.4387	886.4387	0.0214		886.9727
Total	**0.5346**	**5.0137**	**4.0394**	**0.0205**	**1.1715**	**0.0292**	**1.2007**	**0.3172**	**0.0277**	**0.3449**		**2,111.6125**	**2,111.6125**	**0.0817**		**2,113.6548**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**	**0.0000**	**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1592	4.7864	1.1417	0.0116	0.2843	0.0235	0.3078	0.0818	0.0225	0.1043		1,225.1738	1,225.1738	0.0603		1,226.6822
Worker	0.3754	0.2273	2.8977	8.8900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		886.4387	886.4387	0.0214		886.9727
Total	**0.5346**	**5.0137**	**4.0394**	**0.0205**	**1.1715**	**0.0292**	**1.2007**	**0.3172**	**0.0277**	**0.3449**		**2,111.6125**	**2,111.6125**	**0.0817**		**2,113.6548**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1303	4.3403	1.0235	0.0115	0.2843	9.4000e-003	0.2937	0.0818	8.9900e-003	0.0908		1,213.6259	1,213.6259	0.0570		1,215.0499
Worker	0.3473	0.2030	2.6528	8.5800e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		855.3163	855.3163	0.0191		855.7943
Total	**0.4775**	**4.5433**	**3.6763**	**0.0200**	**1.1715**	**0.0150**	**1.1865**	**0.3172**	**0.0141**	**0.3313**		**2,068.9422**	**2,068.9422**	**0.0761**		**2,070.8442**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1303	4.3403	1.0235	0.0115	0.2843	9.4000e-003	0.2937	0.0818	8.9900e-003	0.0908		1,213.6259	1,213.6259	0.0570		1,215.0499
Worker	0.3473	0.2030	2.6528	8.5800e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		855.3163	855.3163	0.0191		855.7943
Total	**0.4775**	**4.5433**	**3.6763**	**0.0200**	**1.1715**	**0.0150**	**1.1865**	**0.3172**	**0.0141**	**0.3313**		**2,068.9422**	**2,068.9422**	**0.0761**		**2,070.8442**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8368**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0418	0.0244	0.3193	1.0300e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		102.9547	102.9547	2.3000e-003		103.0123
Total	**0.0418**	**0.0244**	**0.3193**	**1.0300e-003**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**102.9547**	**102.9547**	**2.3000e-003**		**103.0123**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8368**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0418	0.0244	0.3193	1.0300e-003	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		102.9547	102.9547	2.3000e-003		103.0123
Total	**0.0418**	**0.0244**	**0.3193**	**1.0300e-003**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**102.9547**	**102.9547**	**2.3000e-003**		**103.0123**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	229.1043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**229.3232**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.0413	0.5404	1.7500e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		174.2311	174.2311	3.8900e-003		174.3285
Total	**0.0707**	**0.0413**	**0.5404**	**1.7500e-003**	**0.1807**	**1.1400e-003**	**0.1819**	**0.0479**	**1.0500e-003**	**0.0490**		**174.2311**	**174.2311**	**3.8900e-003**		**174.3285**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	229.1043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**229.3232**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.0413	0.5404	1.7500e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		174.2311	174.2311	3.8900e-003		174.3285
Total	**0.0707**	**0.0413**	**0.5404**	**1.7500e-003**	**0.1807**	**1.1400e-003**	**0.1819**	**0.0479**	**1.0500e-003**	**0.0490**		**174.2311**	**174.2311**	**3.8900e-003**		**174.3285**

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	lb/day										lb/day					
Mitigated	0.0999	0.4276	1.0847	4.0200e-003	0.3443	3.4200e-003	0.3477	0.0921	3.2000e-003	0.0953		406.5153	406.5153	0.0139		406.8624
Unmitigated	0.0999	0.4276	1.0847	4.0200e-003	0.3443	3.4200e-003	0.3477	0.0921	3.2000e-003	0.0953		406.5153	406.5153	0.0139		406.8624

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	60.98	60.98	60.98	162,041	162,041
Parking Lot	0.00	0.00	0.00		
Total	60.98	60.98	60.98	162,041	162,041

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	0.00	0.00	0.00	100	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
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
NaturalGas Unmitigated	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689

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	lb/day										lb/day					
General Light Industry	17827.1	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
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
Total		**0.1923**	**1.7478**	**1.4681**	**0.0105**		**0.1328**	**0.1328**		**0.1328**	**0.1328**		**2,097.3057**	**2,097.3057**	**0.0402**	**0.0385**	**2,109.7689**

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	lb/day										lb/day					
General Light Industry	17.8271	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
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
Total		**0.1923**	**1.7478**	**1.4681**	**0.0105**		**0.1328**	**0.1328**		**0.1328**	**0.1328**		**2,097.3057**	**2,097.3057**	**0.0402**	**0.0385**	**2,109.7689**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.9892	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Unmitigated	5.9109	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207

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	lb/day										lb/day					
Architectural Coating	0.6277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Total	**5.9109**	**8.0000e-005**	**9.0700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0194**	**0.0194**	**5.0000e-005**		**0.0207**

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	lb/day										lb/day					
Architectural Coating	0.7060					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Total	**5.9892**	**8.0000e-005**	**9.0700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0194**	**0.0194**	**5.0000e-005**		**0.0207**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

CoreSite - Santa Clara Data Center SV9

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	61.66	1000sqft	1.42	246,660.00	0
Parking Lot	27.00	Space	0.24	10,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	164.4	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - User defined intensity factors entered for Silicon Valley Power based on 2030 aggregated carbon intensity of 164.4 lbs of CO2 per MWh (based on 2018 Integrated Resource Plan)

Land Use - Based on PD

Construction Phase - Stretched out building construction phase to account for construction ending in November 2021, as per applicant info

Demolition - From data request

Architectural Coating - Per Regulation 8 BAAQMD Architecutral Coatings for nonresidential flat coatings 100 g/L

Vehicle Trips - Assumed 244 trips per day (per ITE) (244/246.666 = 0.989). Assumed all home-to-work trips. Assumed 7.3 mile length.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Per Regulation 8 BAAQMD Architecutral Coatings for nonresidential flat coatings 100 g/L

Energy Use -

Water And Wastewater - Per applicant-provided info, project operation would require 18 acre-feet (5.9 million gallons) per year

Construction Off-road Equipment Mitigation - BAAQMD CEQA Air Quality recommended measures

Mobile Land Use Mitigation -

Area Mitigation - BAAQMD Regulation 8, Rule 3

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	150
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	280.00
tblLandUse	LandUseSquareFeet	61,660.00	246,660.00
tblProjectCharacteristics	CO2IntensityFactor	0	164.4
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	HW_TL	0.00	7.30
tblVehicleTrips	HW_TTP	0.00	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.99
tblVehicleTrips	SU_TR	0.68	0.99
tblVehicleTrips	WD_TR	6.97	0.99
tblWater	IndoorWaterUseRate	14,258,875.00	5,865,318.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2020	2.5951	24.5898	17.2157	0.0415	5.8653	1.1649	6.6867	2.9711	1.0880	3.7268	0.0000	4,011.8845	4,011.8845	0.6543	0.0000	4,023.3026
2021	229.3982	18.2644	16.5577	0.0411	1.1715	0.6997	1.8712	0.3172	0.6753	0.9924	0.0000	3,971.9536	3,971.9536	0.4367	0.0000	3,982.8716
Maximum	**229.3982**	**24.5898**	**17.2157**	**0.0415**	**5.8653**	**1.1649**	**6.6867**	**2.9711**	**1.0880**	**3.7268**	**0.0000**	**4,011.8845**	**4,011.8845**	**0.6543**	**0.0000**	**4,023.3026**

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	lb/day										lb/day					
2020	2.5951	24.5898	17.2157	0.0415	2.6755	1.1649	3.4969	1.3466	1.0880	2.1023	0.0000	4,011.8845	4,011.8845	0.6543	0.0000	4,023.3026
2021	229.3982	18.2644	16.5577	0.0411	1.1715	0.6997	1.8712	0.3172	0.6753	0.9924	0.0000	3,971.9536	3,971.9536	0.4367	0.0000	3,982.8716
Maximum	**229.3982**	**24.5898**	**17.2157**	**0.0415**	**2.6755**	**1.1649**	**3.4969**	**1.3466**	**1.0880**	**2.1023**	**0.0000**	**4,011.8845**	**4,011.8845**	**0.6543**	**0.0000**	**4,023.3026**

	ROG	NOx	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**	**45.33**	**0.00**	**37.27**	**49.40**	**0.00**	**34.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	5.9109	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Energy	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
Mobile	0.0870	0.4501	1.0804	3.7600e-003	0.3443	3.4400e-003	0.3477	0.0921	3.2200e-003	0.0953		380.6857	380.6857	0.0141		381.0379
Total	**6.1901**	**2.1980**	**2.5576**	**0.0143**	**0.3443**	**0.1363**	**0.4806**	**0.0921**	**0.1361**	**0.2282**		**2,478.0107**	**2,478.0107**	**0.0543**	**0.0385**	**2,490.8275**

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	lb/day										lb/day					
Area	5.9892	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Energy	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
Mobile	0.0870	0.4501	1.0804	3.7600e-003	0.3443	3.4400e-003	0.3477	0.0921	3.2200e-003	0.0953		380.6857	380.6857	0.0141		381.0379
Total	**6.2684**	**2.1980**	**2.5576**	**0.0143**	**0.3443**	**0.1363**	**0.4806**	**0.0921**	**0.1361**	**0.2282**		**2,478.0107**	**2,478.0107**	**0.0543**	**0.0385**	**2,490.8275**

	ROG	NOx	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	**-1.26**	**0.00**	**0.00**	**0.00**	**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	9/1/2020	9/28/2020	5	20	
2	Site Preparation	Site Preparation	9/29/2020	9/30/2020	5	2	
3	Grading	Grading	10/1/2020	10/6/2020	5	4	
4	Building Construction	Building Construction	10/7/2020	11/2/2021	5	280	
5	Paving	Paving	11/3/2021	11/16/2021	5	10	
6	Architectural Coating	Architectural Coating	11/17/2021	11/30/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.24

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 369,990; Non-Residential Outdoor: 123,330; Striped Parking Area: 648 (Architectural Coating – sqft)

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	246.00	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
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	108.00	42.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6578	0.0000	2.6578	0.4024	0.0000	0.4024			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**2.6578**	**1.1525**	**3.8102**	**0.4024**	**1.0761**	**1.4786**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1043	3.6097	0.7538	9.6200e-003	0.2149	0.0117	0.2266	0.0589	0.0112	0.0701		1,028.8871	1,028.8871	0.0550		1,030.2616
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0338	0.3276	9.9000e-004	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.2885	98.2885	2.4000e-003		98.3486
Total	**0.1521**	**3.6435**	**1.0814**	**0.0106**	**0.3217**	**0.0124**	**0.3341**	**0.0872**	**0.0119**	**0.0991**		**1,127.1756**	**1,127.1756**	**0.0574**		**1,128.6102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1960	0.0000	1.1960	0.1811	0.0000	0.1811			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**1.1960**	**1.1525**	**2.3485**	**0.1811**	**1.0761**	**1.2572**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1043	3.6097	0.7538	9.6200e-003	0.2149	0.0117	0.2266	0.0589	0.0112	0.0701		1,028.8871	1,028.8871	0.0550		1,030.2616
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0338	0.3276	9.9000e-004	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.2885	98.2885	2.4000e-003		98.3486
Total	**0.1521**	**3.6435**	**1.0814**	**0.0106**	**0.3217**	**0.0124**	**0.3341**	**0.0872**	**0.0119**	**0.0991**		**1,127.1756**	**1,127.1756**	**0.0574**		**1,128.6102**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553		1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**5.7996**	**0.8210**	**6.6205**	**2.9537**	**0.7553**	**3.7090**		**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.0294**	**0.0208**	**0.2016**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**60.4852**	**60.4852**	**1.4800e-003**		**60.5222**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6098	0.0000	2.6098	1.3292	0.0000	1.3292			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553	0.0000	1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**2.6098**	**0.8210**	**3.4308**	**1.3292**	**0.7553**	**2.0844**	**0.0000**	**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.0294**	**0.0208**	**0.2016**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**60.4852**	**60.4852**	**1.4800e-003**		**60.5222**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**4.9143**	**0.6844**	**5.5986**	**2.5256**	**0.6296**	**3.1552**		**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.0294**	**0.0208**	**0.2016**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**60.4852**	**60.4852**	**1.4800e-003**		**60.5222**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2114	0.0000	2.2114	1.1365	0.0000	1.1365			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296	0.0000	1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**2.2114**	**0.6844**	**2.8958**	**1.1365**	**0.6296**	**1.7662**	**0.0000**	**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
Total	**0.0294**	**0.0208**	**0.2016**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0661**	**0.0174**	**3.9000e-004**	**0.0178**		**60.4852**	**60.4852**	**1.4800e-003**		**60.5222**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**		**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1676	4.8400	1.3062	0.0113	0.2843	0.0239	0.3082	0.0818	0.0228	0.1047		1,194.1744	1,194.1744	0.0653		1,195.8059
Worker	0.3971	0.2808	2.7215	8.1900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		816.5506	816.5506	0.0200		817.0499
Total	**0.5646**	**5.1208**	**4.0276**	**0.0195**	**1.1715**	**0.0296**	**1.2011**	**0.3172**	**0.0281**	**0.3453**		**2,010.7251**	**2,010.7251**	**0.0852**		**2,012.8558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**	**0.0000**	**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1676	4.8400	1.3062	0.0113	0.2843	0.0239	0.3082	0.0818	0.0228	0.1047		1,194.1744	1,194.1744	0.0653		1,195.8059
Worker	0.3971	0.2808	2.7215	8.1900e-003	0.8872	5.7400e-003	0.8929	0.2353	5.2900e-003	0.2406		816.5506	816.5506	0.0200		817.0499
Total	**0.5646**	**5.1208**	**4.0276**	**0.0195**	**1.1715**	**0.0296**	**1.2011**	**0.3172**	**0.0281**	**0.3453**		**2,010.7251**	**2,010.7251**	**0.0852**		**2,012.8558**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1380	4.3777	1.1764	0.0112	0.2843	9.7300e-003	0.2940	0.0818	9.3100e-003	0.0912		1,182.8340	1,182.8340	0.0616		1,184.3746
Worker	0.3679	0.2507	2.4820	7.9000e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		787.8996	787.8996	0.0178		788.3453
Total	**0.5059**	**4.6283**	**3.6584**	**0.0191**	**1.1715**	**0.0153**	**1.1868**	**0.3172**	**0.0145**	**0.3316**		**1,970.7336**	**1,970.7336**	**0.0795**		**1,972.7199**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1380	4.3777	1.1764	0.0112	0.2843	9.7300e-003	0.2940	0.0818	9.3100e-003	0.0912		1,182.8340	1,182.8340	0.0616		1,184.3746
Worker	0.3679	0.2507	2.4820	7.9000e-003	0.8872	5.5800e-003	0.8928	0.2353	5.1400e-003	0.2405		787.8996	787.8996	0.0178		788.3453
Total	**0.5059**	**4.6283**	**3.6584**	**0.0191**	**1.1715**	**0.0153**	**1.1868**	**0.3172**	**0.0145**	**0.3316**		**1,970.7336**	**1,970.7336**	**0.0795**		**1,972.7199**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8368**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**		**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0302	0.2988	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		94.8398	94.8398	2.1500e-003		94.8934
Total	**0.0443**	**0.0302**	**0.2988**	**9.5000e-004**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**94.8398**	**94.8398**	**2.1500e-003**		**94.8934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8368**	**7.7422**	**8.8569**	**0.0135**		**0.4153**	**0.4153**		**0.3830**	**0.3830**	**0.0000**	**1,296.8664**	**1,296.8664**	**0.4111**		**1,307.1442**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0302	0.2988	9.5000e-004	0.1068	6.7000e-004	0.1075	0.0283	6.2000e-004	0.0290		94.8398	94.8398	2.1500e-003		94.8934
Total	**0.0443**	**0.0302**	**0.2988**	**9.5000e-004**	**0.1068**	**6.7000e-004**	**0.1075**	**0.0283**	**6.2000e-004**	**0.0290**		**94.8398**	**94.8398**	**2.1500e-003**		**94.8934**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	229.1043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**229.3232**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0749	0.0511	0.5056	1.6100e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		160.4981	160.4981	3.6300e-003		160.5889
Total	**0.0749**	**0.0511**	**0.5056**	**1.6100e-003**	**0.1807**	**1.1400e-003**	**0.1819**	**0.0479**	**1.0500e-003**	**0.0490**		**160.4981**	**160.4981**	**3.6300e-003**		**160.5889**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	229.1043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**229.3232**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0749	0.0511	0.5056	1.6100e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		160.4981	160.4981	3.6300e-003		160.5889
Total	**0.0749**	**0.0511**	**0.5056**	**1.6100e-003**	**0.1807**	**1.1400e-003**	**0.1819**	**0.0479**	**1.0500e-003**	**0.0490**		**160.4981**	**160.4981**	**3.6300e-003**		**160.5889**

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	lb/day										lb/day					
Mitigated	0.0870	0.4501	1.0804	3.7600e-003	0.3443	3.4400e-003	0.3477	0.0921	3.2200e-003	0.0953		380.6857	380.6857	0.0141		381.0379
Unmitigated	0.0870	0.4501	1.0804	3.7600e-003	0.3443	3.4400e-003	0.3477	0.0921	3.2200e-003	0.0953		380.6857	380.6857	0.0141		381.0379

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	60.98	60.98	60.98	162,041	162,041
Parking Lot	0.00	0.00	0.00		
Total	60.98	60.98	60.98	162,041	162,041

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	0.00	0.00	0.00	100	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
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
NaturalGas Unmitigated	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689

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	lb/day										lb/day					
General Light Industry	17827.1	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
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
Total		**0.1923**	**1.7478**	**1.4681**	**0.0105**		**0.1328**	**0.1328**		**0.1328**	**0.1328**		**2,097.3057**	**2,097.3057**	**0.0402**	**0.0385**	**2,109.7689**

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	lb/day										lb/day					
General Light Industry	17.8271	0.1923	1.7478	1.4681	0.0105		0.1328	0.1328		0.1328	0.1328		2,097.3057	2,097.3057	0.0402	0.0385	2,109.7689
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
Total		**0.1923**	**1.7478**	**1.4681**	**0.0105**		**0.1328**	**0.1328**		**0.1328**	**0.1328**		**2,097.3057**	**2,097.3057**	**0.0402**	**0.0385**	**2,109.7689**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.9892	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Unmitigated	5.9109	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207

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	lb/day										lb/day					
Architectural Coating	0.6277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Total	**5.9109**	**8.0000e-005**	**9.0700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0194**	**0.0194**	**5.0000e-005**		**0.0207**

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	lb/day										lb/day					
Architectural Coating	0.7060					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.4000e-004	8.0000e-005	9.0700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0194	0.0194	5.0000e-005		0.0207
Total	**5.9892**	**8.0000e-005**	**9.0700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0194**	**0.0194**	**5.0000e-005**		**0.0207**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Appendix B

CalEEMod Modeling Output – Baseline Emissions

CoreSite - Santa Clara Data Center SV9 - Existing Conditions

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	54.00	1000sqft	1.24	54,000.00	0
Parking Lot	80.00	1000sqft	1.84	80,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVP energy intensity factors

Land Use -

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - BAAQMD CEQA Air Quality Guidelines

Area Mitigation - BAAQMD Regulation 8, Rule 3

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	380
tblProjectCharacteristics	N2OIntensityFactor	0	0.006

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1196	1.1453	0.8605	1.6400e-003	0.0895	0.0583	0.1479	0.0432	0.0545	0.0977	0.0000	144.7390	144.7390	0.0323	0.0000	145.5472
2021	0.5008	1.8486	1.7434	3.4500e-003	0.0536	0.0906	0.1442	0.0145	0.0852	0.0997	0.0000	304.2330	304.2330	0.0569	0.0000	305.6559
Maximum	**0.5008**	**1.8486**	**1.7434**	**3.4500e-003**	**0.0895**	**0.0906**	**0.1479**	**0.0432**	**0.0852**	**0.0997**	**0.0000**	**304.2330**	**304.2330**	**0.0569**	**0.0000**	**305.6559**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1196	1.1453	0.8605	1.6400e-003	0.0503	0.0583	0.1086	0.0222	0.0545	0.0766	0.0000	144.7389	144.7389	0.0323	0.0000	145.5471
2021	0.5008	1.8486	1.7434	3.4500e-003	0.0536	0.0906	0.1442	0.0145	0.0852	0.0997	0.0000	304.2328	304.2328	0.0569	0.0000	305.6556
Maximum	**0.5008**	**1.8486**	**1.7434**	**3.4500e-003**	**0.0536**	**0.0906**	**0.1442**	**0.0222**	**0.0852**	**0.0997**	**0.0000**	**304.2328**	**304.2328**	**0.0569**	**0.0000**	**305.6556**

	ROG	**NOx**	**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**	**27.44**	**0.00**	**13.44**	**36.48**	**0.00**	**10.67**	**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	**9-1-2020**	**11-30-2020**	0.9846	0.9846
2	**12-1-2020**	**2-28-2021**	0.7328	0.7328
3	**3-1-2021**	**5-31-2021**	0.7222	0.7222
4	**6-1-2021**	**8-31-2021**	0.7215	0.7215
5	**9-1-2021**	**9-30-2021**	0.1549	0.1549
		Highest	0.9846	0.9846

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	0.2460	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5500e-003
Energy	7.6800e-003	0.0698	0.0587	4.2000e-004		5.3100e-003	5.3100e-003		5.3100e-003	5.3100e-003	0.0000	157.7258	157.7258	7.6900e-003	2.6800e-003	158.7179
Mobile	0.0772	0.3955	0.9436	3.5200e-003	0.3089	3.1600e-003	0.3120	0.0829	2.9600e-003	0.0859	0.0000	322.9352	322.9352	0.0114	0.0000	323.2189
Waste						0.0000	0.0000		0.0000	0.0000	13.5923	0.0000	13.5923	0.8033	0.0000	33.6743
Water						0.0000	0.0000		0.0000	0.0000	3.9617	11.6467	15.6084	0.4078	9.7900e-003	28.7212
Total	**0.3309**	**0.4654**	**1.0035**	**3.9400e-003**	**0.3089**	**8.4700e-003**	**0.3174**	**0.0829**	**8.2700e-003**	**0.0912**	**17.5540**	**492.3100**	**509.8640**	**1.2301**	**0.0125**	**544.3348**

2.2 Overall Operational

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	0.2460	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5500e-003
Energy	7.6800e-003	0.0698	0.0587	4.2000e-004		5.3100e-003	5.3100e-003		5.3100e-003	5.3100e-003	0.0000	157.7258	157.7258	7.6900e-003	2.6800e-003	158.7179
Mobile	0.0772	0.3955	0.9436	3.5200e-003	0.3089	3.1600e-003	0.3120	0.0829	2.9600e-003	0.0859	0.0000	322.9352	322.9352	0.0114	0.0000	323.2189
Waste						0.0000	0.0000		0.0000	0.0000	13.5923	0.0000	13.5923	0.8033	0.0000	33.6743
Water						0.0000	0.0000		0.0000	0.0000	3.9617	11.6467	15.6084	0.4078	9.7900e-003	28.7212
Total	**0.3309**	**0.4654**	**1.0035**	**3.9400e-003**	**0.3089**	**8.4700e-003**	**0.3174**	**0.0829**	**8.2700e-003**	**0.0912**	**17.5540**	**492.3100**	**509.8640**	**1.2301**	**0.0125**	**544.3348**

	ROG	NOx	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	9/1/2020	9/28/2020	5	20	
2	Site Preparation	Site Preparation	9/29/2020	10/5/2020	5	5	
3	Grading	Grading	10/6/2020	10/15/2020	5	8	
4	Building Construction	Building Construction	10/16/2020	9/2/2021	5	230	
5	Paving	Paving	9/3/2021	9/28/2021	5	18	
6	Architectural Coating	Architectural Coating	9/29/2021	10/22/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 81,000; Non-Residential Outdoor: 27,000; Striped Parking Area: 4,800 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

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	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	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	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	56.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**5.0000e-004**	**3.6000e-004**	**3.6800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0384**	**1.0384**	**3.0000e-005**	**0.0000**	**1.0391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**		**0.0166**	**0.0166**		**0.0154**	**0.0154**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**5.0000e-004**	**3.6000e-004**	**3.6800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0384**	**1.0384**	**3.0000e-005**	**0.0000**	**1.0391**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4253
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0452**	**5.4900e-003**	**0.0507**	**0.0248**	**5.0500e-003**	**0.0299**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4253**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3115	0.3115	1.0000e-005	0.0000	0.3117
Total	**1.5000e-004**	**1.1000e-004**	**1.1100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3115**	**0.3115**	**1.0000e-005**	**0.0000**	**0.3117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0203	0.0000	0.0203	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4252
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0203**	**5.4900e-003**	**0.0258**	**0.0112**	**5.0500e-003**	**0.0162**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4252**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3115	0.3115	1.0000e-005	0.0000	0.3117
Total	**1.5000e-004**	**1.1000e-004**	**1.1100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3115**	**0.3115**	**1.0000e-005**	**0.0000**	**0.3117**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0262**	**5.0900e-003**	**0.0313**	**0.0135**	**4.6900e-003**	**0.0182**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4154	0.4154	1.0000e-005	0.0000	0.4156
Total	**2.0000e-004**	**1.4000e-004**	**1.4700e-003**	**0.0000**	**4.7000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4154**	**0.4154**	**1.0000e-005**	**0.0000**	**0.4156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0118	0.0000	0.0118	6.0600e-003	0.0000	6.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0118**	**5.0900e-003**	**0.0169**	**6.0600e-003**	**4.6900e-003**	**0.0108**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4154	0.4154	1.0000e-005	0.0000	0.4156
Total	**2.0000e-004**	**1.4000e-004**	**1.4700e-003**	**0.0000**	**4.7000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4154**	**0.4154**	**1.0000e-005**	**0.0000**	**0.4156**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0583	0.5276	0.4633	7.4000e-004		0.0307	0.0307		0.0289	0.0289	0.0000	63.6928	63.6928	0.0155	0.0000	64.0812
Total	**0.0583**	**0.5276**	**0.4633**	**7.4000e-004**		**0.0307**	**0.0307**		**0.0289**	**0.0289**	**0.0000**	**63.6928**	**63.6928**	**0.0155**	**0.0000**	**64.0812**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3400e-003	0.0698	0.0176	1.6000e-004	3.9700e-003	3.4000e-004	4.3100e-003	1.1500e-003	3.3000e-004	1.4700e-003	0.0000	15.8401	15.8401	8.2000e-004	0.0000	15.8605
Worker	5.1000e-003	3.6500e-003	0.0378	1.2000e-004	0.0122	8.0000e-005	0.0123	3.2400e-003	8.0000e-005	3.3100e-003	0.0000	10.6611	10.6611	2.6000e-004	0.0000	10.6676
Total	**7.4400e-003**	**0.0735**	**0.0554**	**2.8000e-004**	**0.0161**	**4.2000e-004**	**0.0166**	**4.3900e-003**	**4.1000e-004**	**4.7800e-003**	**0.0000**	**26.5012**	**26.5012**	**1.0800e-003**	**0.0000**	**26.5281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0583	0.5276	0.4633	7.4000e-004		0.0307	0.0307		0.0289	0.0289	0.0000	63.6927	63.6927	0.0155	0.0000	64.0811
Total	**0.0583**	**0.5276**	**0.4633**	**7.4000e-004**		**0.0307**	**0.0307**		**0.0289**	**0.0289**	**0.0000**	**63.6927**	**63.6927**	**0.0155**	**0.0000**	**64.0811**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3400e-003	0.0698	0.0176	1.6000e-004	3.9700e-003	3.4000e-004	4.3100e-003	1.1500e-003	3.3000e-004	1.4700e-003	0.0000	15.8401	15.8401	8.2000e-004	0.0000	15.8605
Worker	5.1000e-003	3.6500e-003	0.0378	1.2000e-004	0.0122	8.0000e-005	0.0123	3.2400e-003	8.0000e-005	3.3100e-003	0.0000	10.6611	10.6611	2.6000e-004	0.0000	10.6676
Total	**7.4400e-003**	**0.0735**	**0.0554**	**2.8000e-004**	**0.0161**	**4.2000e-004**	**0.0166**	**4.3900e-003**	**4.1000e-004**	**4.7800e-003**	**0.0000**	**26.5012**	**26.5012**	**1.0800e-003**	**0.0000**	**26.5281**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1663	1.5253	1.4503	2.3600e-003		0.0839	0.0839		0.0789	0.0789	0.0000	202.6826	202.6826	0.0489	0.0000	203.9051
Total	**0.1663**	**1.5253**	**1.4503**	**2.3600e-003**		**0.0839**	**0.0839**		**0.0789**	**0.0789**	**0.0000**	**202.6826**	**202.6826**	**0.0489**	**0.0000**	**203.9051**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1100e-003	0.2011	0.0502	5.2000e-004	0.0126	4.4000e-004	0.0131	3.6500e-003	4.2000e-004	4.0700e-003	0.0000	49.9237	49.9237	2.4500e-003	0.0000	49.9851
Worker	0.0150	0.0104	0.1099	3.6000e-004	0.0387	2.5000e-004	0.0390	0.0103	2.3000e-004	0.0105	0.0000	32.7315	32.7315	7.3000e-004	0.0000	32.7499
Total	**0.0212**	**0.2114**	**0.1601**	**8.8000e-004**	**0.0513**	**6.9000e-004**	**0.0520**	**0.0140**	**6.5000e-004**	**0.0146**	**0.0000**	**82.6552**	**82.6552**	**3.1800e-003**	**0.0000**	**82.7349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1663	1.5253	1.4503	2.3600e-003		0.0839	0.0839		0.0789	0.0789	0.0000	202.6824	202.6824	0.0489	0.0000	203.9048
Total	**0.1663**	**1.5253**	**1.4503**	**2.3600e-003**		**0.0839**	**0.0839**		**0.0789**	**0.0789**	**0.0000**	**202.6824**	**202.6824**	**0.0489**	**0.0000**	**203.9048**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1100e-003	0.2011	0.0502	5.2000e-004	0.0126	4.4000e-004	0.0131	3.6500e-003	4.2000e-004	4.0700e-003	0.0000	49.9237	49.9237	2.4500e-003	0.0000	49.9851
Worker	0.0150	0.0104	0.1099	3.6000e-004	0.0387	2.5000e-004	0.0390	0.0103	2.3000e-004	0.0105	0.0000	32.7315	32.7315	7.3000e-004	0.0000	32.7499
Total	**0.0212**	**0.2114**	**0.1601**	**8.8000e-004**	**0.0513**	**6.9000e-004**	**0.0520**	**0.0140**	**6.5000e-004**	**0.0146**	**0.0000**	**82.6552**	**82.6552**	**3.1800e-003**	**0.0000**	**82.7349**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7336	14.7336	4.6300e-003	0.0000	14.8493
Paving	2.4100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0123**	**0.0976**	**0.1103**	**1.7000e-004**		**5.2100e-003**	**5.2100e-003**		**4.8100e-003**	**4.8100e-003**	**0.0000**	**14.7336**	**14.7336**	**4.6300e-003**	**0.0000**	**14.8493**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.8000e-004	4.0400e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2024	1.2024	3.0000e-005	0.0000	1.2031
Total	**5.5000e-004**	**3.8000e-004**	**4.0400e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2024**	**1.2024**	**3.0000e-005**	**0.0000**	**1.2031**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7335	14.7335	4.6300e-003	0.0000	14.8493
Paving	2.4100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0123**	**0.0976**	**0.1103**	**1.7000e-004**		**5.2100e-003**	**5.2100e-003**		**4.8100e-003**	**4.8100e-003**	**0.0000**	**14.7335**	**14.7335**	**4.6300e-003**	**0.0000**	**14.8493**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.8000e-004	4.0400e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2024	1.2024	3.0000e-005	0.0000	1.2031
Total	**5.5000e-004**	**3.8000e-004**	**4.0400e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2024**	**1.2024**	**3.0000e-005**	**0.0000**	**1.2031**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2983					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**0.3002**	**0.0137**	**0.0164**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2200e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6613	0.6613	1.0000e-005	0.0000	0.6617
Total	**3.0000e-004**	**2.1000e-004**	**2.2200e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6613**	**0.6613**	**1.0000e-005**	**0.0000**	**0.6617**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2983					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**0.3002**	**0.0137**	**0.0164**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2200e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6613	0.6613	1.0000e-005	0.0000	0.6617
Total	**3.0000e-004**	**2.1000e-004**	**2.2200e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6613**	**0.6613**	**1.0000e-005**	**0.0000**	**0.6617**

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	0.0772	0.3955	0.9436	3.5200e-003	0.3089	3.1600e-003	0.3120	0.0829	2.9600e-003	0.0859	0.0000	322.9352	322.9352	0.0114	0.0000	323.2189
Unmitigated	0.0772	0.3955	0.9436	3.5200e-003	0.3089	3.1600e-003	0.3120	0.0829	2.9600e-003	0.0859	0.0000	322.9352	322.9352	0.0114	0.0000	323.2189

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	376.38	71.28	36.72	829,934	829,934
Parking Lot	0.00	0.00	0.00		
Total	376.38	71.28	36.72	829,934	829,934

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.7080	81.7080	6.2400e-003	1.2900e-003	82.2483
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.7080	81.7080	6.2400e-003	1.2900e-003	82.2483
NaturalGas Mitigated	7.6800e-003	0.0698	0.0587	4.2000e-004		5.3100e-003	5.3100e-003		5.3100e-003	5.3100e-003	0.0000	76.0178	76.0178	1.4600e-003	1.3900e-003	76.4696
NaturalGas Unmitigated	7.6800e-003	0.0698	0.0587	4.2000e-004		5.3100e-003	5.3100e-003		5.3100e-003	5.3100e-003	0.0000	76.0178	76.0178	1.4600e-003	1.3900e-003	76.4696

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.42452e+006	7.6800e-003	0.0698	0.0587	4.2000e-004		5.3100e-003	5.3100e-003		5.3100e-003	5.3100e-003	0.0000	76.0178	76.0178	1.4600e-003	1.3900e-003	76.4696
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		**7.6800e-003**	**0.0698**	**0.0587**	**4.2000e-004**		**5.3100e-003**	**5.3100e-003**		**5.3100e-003**	**5.3100e-003**	**0.0000**	**76.0178**	**76.0178**	**1.4600e-003**	**1.3900e-003**	**76.4696**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.42452e+006	7.6800e-003	0.0698	0.0587	4.2000e-004		5.3100e-003	5.3100e-003		5.3100e-003	5.3100e-003	0.0000	76.0178	76.0178	1.4600e-003	1.3900e-003	76.4696
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		**7.6800e-003**	**0.0698**	**0.0587**	**4.2000e-004**		**5.3100e-003**	**5.3100e-003**		**5.3100e-003**	**5.3100e-003**	**0.0000**	**76.0178**	**76.0178**	**1.4600e-003**	**1.3900e-003**	**76.4696**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	446040	76.8817	5.8700e-003	1.2100e-003	77.3902
Parking Lot	28000	4.8262	3.7000e-004	8.0000e-005	4.8581
Total		**81.7080**	**6.2400e-003**	**1.2900e-003**	**82.2483**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	446040	76.8817	5.8700e-003	1.2100e-003	77.3902
Parking Lot	28000	4.8262	3.7000e-004	8.0000e-005	4.8581
Total		**81.7080**	**6.2400e-003**	**1.2900e-003**	**82.2483**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2460	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5500e-003
Unmitigated	0.2460	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5500e-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	0.0298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5500e-003
Total	**0.2460**	**1.0000e-005**	**1.2300e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.3900e-003**	**2.3900e-003**	**1.0000e-005**	**0.0000**	**2.5500e-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	0.0298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5500e-003
Total	**0.2460**	**1.0000e-005**	**1.2300e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.3900e-003**	**2.3900e-003**	**1.0000e-005**	**0.0000**	**2.5500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.6084	0.4078	9.7900e-003	28.7212
Unmitigated	15.6084	0.4078	9.7900e-003	28.7212

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.4875 / 0	15.6084	0.4078	9.7900e-003	28.7212
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.6084**	**0.4078**	**9.7900e-003**	**28.7212**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.4875 / 0	15.6084	0.4078	9.7900e-003	28.7212
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.6084**	**0.4078**	**9.7900e-003**	**28.7212**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.5923	0.8033	0.0000	33.6743
Unmitigated	13.5923	0.8033	0.0000	33.6743

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	66.96	13.5923	0.8033	0.0000	33.6743
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.5923**	**0.8033**	**0.0000**	**33.6743**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	66.96	13.5923	0.8033	0.0000	33.6743
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.5923**	**0.8033**	**0.0000**	**33.6743**

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

CoreSite - Santa Clara Data Center SV9 - Existing Conditions

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	54.00	1000sqft	1.24	54,000.00	0
Parking Lot	80.00	1000sqft	1.84	80,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVP energy intensity factors

Land Use -

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - BAAQMD CEQA Air Quality Guidelines

Area Mitigation - BAAQMD Regulation 8, Rule 3

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	380
tblProjectCharacteristics	N2OIntensityFactor	0	0.006

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2020	4.1390	42.4552	22.1557	0.0401	18.2141	2.1984	20.4125	9.9699	2.0225	11.9924	0.0000	3,870.8214	3,870.8214	1.1954	0.0000	3,897.3443
2021	33.3945	19.8108	18.4869	0.0374	0.6090	0.9664	1.5754	0.1649	0.9087	1.0736	0.0000	3,632.5700	3,632.5700	0.6558	0.0000	3,648.9642
Maximum	**33.3945**	**42.4552**	**22.1557**	**0.0401**	**18.2141**	**2.1984**	**20.4125**	**9.9699**	**2.0225**	**11.9924**	**0.0000**	**3,870.8214**	**3,870.8214**	**1.1954**	**0.0000**	**3,897.3443**

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	lb/day										lb/day					
2020	4.1390	42.4552	22.1557	0.0401	8.2777	2.1984	10.4761	4.5080	2.0225	6.5305	0.0000	3,870.8214	3,870.8214	1.1954	0.0000	3,897.3443
2021	33.3945	19.8108	18.4869	0.0374	0.6090	0.9664	1.5754	0.1649	0.9087	1.0736	0.0000	3,632.5700	3,632.5700	0.6558	0.0000	3,648.9641
Maximum	**33.3945**	**42.4552**	**22.1557**	**0.0401**	**8.2777**	**2.1984**	**10.4761**	**4.5080**	**2.0225**	**6.5305**	**0.0000**	**3,870.8214**	**3,870.8214**	**1.1954**	**0.0000**	**3,897.3443**

	ROG	**NOx**	**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**	**52.79**	**0.00**	**45.19**	**53.89**	**0.00**	**41.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Energy	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
Mobile	0.6376	2.7819	7.2317	0.0271	2.3345	0.0230	2.3575	0.6246	0.0215	0.6461		2,740.7747	2,740.7747	0.0921		2,743.0761
Total	**2.0283**	**3.1647**	**7.5668**	**0.0294**	**2.3345**	**0.0521**	**2.3866**	**0.6246**	**0.0506**	**0.6752**		**3,199.9563**	**3,199.9563**	**0.1009**	**8.4200e-003**	**3,204.9882**

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	lb/day										lb/day					
Area	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Energy	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
Mobile	0.6376	2.7819	7.2317	0.0271	2.3345	0.0230	2.3575	0.6246	0.0215	0.6461		2,740.7747	2,740.7747	0.0921		2,743.0761
Total	**2.0283**	**3.1647**	**7.5668**	**0.0294**	**2.3345**	**0.0521**	**2.3866**	**0.6246**	**0.0506**	**0.6752**		**3,199.9563**	**3,199.9563**	**0.1009**	**8.4200e-003**	**3,204.9882**

	ROG	NOx	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	9/1/2020	9/28/2020	5	20	
2	Site Preparation	Site Preparation	9/29/2020	10/5/2020	5	5	
3	Grading	Grading	10/6/2020	10/15/2020	5	8	
4	Building Construction	Building Construction	10/16/2020	9/2/2021	5	230	
5	Paving	Paving	9/3/2021	9/28/2021	5	18	
6	Architectural Coating	Architectural Coating	9/29/2021	10/22/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 81,000; Non-Residential Outdoor: 27,000; Striped Parking Area: 4,800 (Architectural Coating – sqft)

OffRoad Equipment

CoreSite - Santa Clara Data Center SV9 - Existing Conditions - Bay Area AQMD Air District, Summer

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	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	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	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	56.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	**0.0521**	**0.0316**	**0.4025**	**1.2400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**123.1165**	**123.1165**	**2.9700e-003**		**123.1907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	**0.0521**	**0.0316**	**0.4025**	**1.2400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**123.1165**	**123.1165**	**2.9700e-003**		**123.1907**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0626	0.0379	0.4830	1.4800e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		147.7398	147.7398	3.5600e-003		147.8288
Total	**0.0626**	**0.0379**	**0.4830**	**1.4800e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**147.7398**	**147.7398**	**3.5600e-003**		**147.8288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**8.1298**	**2.1974**	**10.3272**	**4.4688**	**2.0216**	**6.4904**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0626	0.0379	0.4830	1.4800e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		147.7398	147.7398	3.5600e-003		147.8288
Total	**0.0626**	**0.0379**	**0.4830**	**1.4800e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**147.7398**	**147.7398**	**3.5600e-003**		**147.8288**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.5523**	**1.2734**	**7.8258**	**3.3675**	**1.1716**	**4.5390**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	**0.0521**	**0.0316**	**0.4025**	**1.2400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**123.1165**	**123.1165**	**2.9700e-003**		**123.1907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**2.9486**	**1.2734**	**4.2220**	**1.5154**	**1.1716**	**2.6869**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
Total	**0.0521**	**0.0316**	**0.4025**	**1.2400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**123.1165**	**123.1165**	**2.9700e-003**		**123.1907**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0834	2.5072	0.5981	6.0600e-003	0.1489	0.0123	0.1612	0.0429	0.0118	0.0546		641.7577	641.7577	0.0316		642.5478
Worker	0.1946	0.1178	1.5025	4.6100e-003	0.4600	2.9800e-003	0.4630	0.1220	2.7400e-003	0.1248		459.6349	459.6349	0.0111		459.9118
Total	**0.2780**	**2.6250**	**2.1006**	**0.0107**	**0.6090**	**0.0153**	**0.6242**	**0.1649**	**0.0145**	**0.1794**		**1,101.3926**	**1,101.3926**	**0.0427**		**1,102.4596**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0834	2.5072	0.5981	6.0600e-003	0.1489	0.0123	0.1612	0.0429	0.0118	0.0546		641.7577	641.7577	0.0316		642.5478
Worker	0.1946	0.1178	1.5025	4.6100e-003	0.4600	2.9800e-003	0.4630	0.1220	2.7400e-003	0.1248		459.6349	459.6349	0.0111		459.9118
Total	**0.2780**	**2.6250**	**2.1006**	**0.0107**	**0.6090**	**0.0153**	**0.6242**	**0.1649**	**0.0145**	**0.1794**		**1,101.3926**	**1,101.3926**	**0.0427**		**1,102.4596**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0682	2.2735	0.5361	6.0000e-003	0.1489	4.9300e-003	0.1539	0.0429	4.7100e-003	0.0476		635.7088	635.7088	0.0298		636.4547
Worker	0.1801	0.1052	1.3755	4.4500e-003	0.4600	2.8900e-003	0.4629	0.1220	2.6700e-003	0.1247		443.4973	443.4973	9.9100e-003		443.7452
Total	**0.2483**	**2.3787**	**1.9117**	**0.0105**	**0.6090**	**7.8200e-003**	**0.6168**	**0.1649**	**7.3800e-003**	**0.1723**		**1,079.2061**	**1,079.2061**	**0.0398**		**1,080.1999**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0682	2.2735	0.5361	6.0000e-003	0.1489	4.9300e-003	0.1539	0.0429	4.7100e-003	0.0476		635.7088	635.7088	0.0298		636.4547
Worker	0.1801	0.1052	1.3755	4.4500e-003	0.4600	2.8900e-003	0.4629	0.1220	2.6700e-003	0.1247		443.4973	443.4973	9.9100e-003		443.7452
Total	**0.2483**	**2.3787**	**1.9117**	**0.0105**	**0.6090**	**7.8200e-003**	**0.6168**	**0.1649**	**7.3800e-003**	**0.1723**		**1,079.2061**	**1,079.2061**	**0.0398**		**1,080.1999**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.2678					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3618**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
Total	**0.0643**	**0.0376**	**0.4913**	**1.5900e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**158.3919**	**158.3919**	**3.5400e-003**		**158.4804**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.2678					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3618**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
Total	**0.0643**	**0.0376**	**0.4913**	**1.5900e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**158.3919**	**158.3919**	**3.5400e-003**		**158.4804**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1403					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**33.3592**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0354	0.0207	0.2702	8.7000e-004	0.0904	5.7000e-004	0.0909	0.0240	5.2000e-004	0.0245		87.1156	87.1156	1.9500e-003		87.1642
Total	**0.0354**	**0.0207**	**0.2702**	**8.7000e-004**	**0.0904**	**5.7000e-004**	**0.0909**	**0.0240**	**5.2000e-004**	**0.0245**		**87.1156**	**87.1156**	**1.9500e-003**		**87.1642**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1403					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**33.3592**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0354	0.0207	0.2702	8.7000e-004	0.0904	5.7000e-004	0.0909	0.0240	5.2000e-004	0.0245		87.1156	87.1156	1.9500e-003		87.1642
Total	**0.0354**	**0.0207**	**0.2702**	**8.7000e-004**	**0.0904**	**5.7000e-004**	**0.0909**	**0.0240**	**5.2000e-004**	**0.0245**		**87.1156**	**87.1156**	**1.9500e-003**		**87.1642**

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	lb/day										lb/day					
Mitigated	0.6376	2.7819	7.2317	0.0271	2.3345	0.0230	2.3575	0.6246	0.0215	0.6461		2,740.7747	2,740.7747	0.0921		2,743.0761
Unmitigated	0.6376	2.7819	7.2317	0.0271	2.3345	0.0230	2.3575	0.6246	0.0215	0.6461		2,740.7747	2,740.7747	0.0921		2,743.0761

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	376.38	71.28	36.72	829,934	829,934
Parking Lot	0.00	0.00	0.00		
Total	376.38	71.28	36.72	829,934	829,934

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
NaturalGas Unmitigated	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808

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	lb/day										lb/day					
General Light Industry	3902.79	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
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
Total		**0.0421**	**0.3826**	**0.3214**	**2.3000e-003**		**0.0291**	**0.0291**		**0.0291**	**0.0291**		**459.1523**	**459.1523**	**8.8000e-003**	**8.4200e-003**	**461.8808**

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	lb/day										lb/day					
General Light Industry	3.90279	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
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
Total		**0.0421**	**0.3826**	**0.3214**	**2.3000e-003**		**0.0291**	**0.0291**		**0.0291**	**0.0291**		**459.1523**	**459.1523**	**8.8000e-003**	**8.4200e-003**	**461.8808**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Unmitigated	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313

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	lb/day										lb/day					
Architectural Coating	0.1634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1839					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2700e-003	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Total	**1.3486**	**1.3000e-004**	**0.0137**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0293**	**0.0293**	**8.0000e-005**		**0.0313**

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	lb/day										lb/day					
Architectural Coating	0.1634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1839					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2700e-003	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Total	**1.3486**	**1.3000e-004**	**0.0137**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0293**	**0.0293**	**8.0000e-005**		**0.0313**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

CoreSite - Santa Clara Data Center SV9 - Existing Conditions

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	54.00	1000sqft	1.24	54,000.00	0
Parking Lot	80.00	1000sqft	1.84	80,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVP energy intensity factors

Land Use -

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - BAAQMD CEQA Air Quality Guidelines

Area Mitigation - BAAQMD Regulation 8, Rule 3

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	380
tblProjectCharacteristics	N2OIntensityFactor	0	0.006

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2020	4.1427	42.4641	22.1312	0.0400	18.2141	2.1984	20.4125	9.9699	2.0225	11.9924	0.0000	3,861.1147	3,861.1147	1.1952	0.0000	3,887.6328
2021	33.3966	19.8551	18.4784	0.0369	0.6090	0.9666	1.5756	0.1649	0.9088	1.0737	0.0000	3,581.4841	3,581.4841	0.6575	0.0000	3,597.9226
Maximum	**33.3966**	**42.4641**	**22.1312**	**0.0400**	**18.2141**	**2.1984**	**20.4125**	**9.9699**	**2.0225**	**11.9924**	**0.0000**	**3,861.1147**	**3,861.1147**	**1.1952**	**0.0000**	**3,887.6328**

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	lb/day										lb/day					
2020	4.1427	42.4641	22.1312	0.0400	8.2777	2.1984	10.4761	4.5080	2.0225	6.5305	0.0000	3,861.1147	3,861.1147	1.1952	0.0000	3,887.6328
2021	33.3966	19.8551	18.4784	0.0369	0.6090	0.9666	1.5756	0.1649	0.9088	1.0737	0.0000	3,581.4841	3,581.4841	0.6575	0.0000	3,597.9226
Maximum	**33.3966**	**42.4641**	**22.1312**	**0.0400**	**8.2777**	**2.1984**	**10.4761**	**4.5080**	**2.0225**	**6.5305**	**0.0000**	**3,861.1147**	**3,861.1147**	**1.1952**	**0.0000**	**3,887.6328**

	ROG	NOx	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**	**52.79**	**0.00**	**45.19**	**53.89**	**0.00**	**41.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Energy	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
Mobile	0.5579	2.9356	7.1458	0.0254	2.3345	0.0231	2.3576	0.6246	0.0216	0.6462		2,567.0184	2,567.0184	0.0931		2,569.3446
Total	**1.9486**	**3.3184**	**7.4809**	**0.0277**	**2.3345**	**0.0522**	**2.3867**	**0.6246**	**0.0508**	**0.6754**		**3,026.2000**	**3,026.2000**	**0.1019**	**8.4200e-003**	**3,031.2567**

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	lb/day										lb/day					
Area	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Energy	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
Mobile	0.5579	2.9356	7.1458	0.0254	2.3345	0.0231	2.3576	0.6246	0.0216	0.6462		2,567.0184	2,567.0184	0.0931		2,569.3446
Total	**1.9486**	**3.3184**	**7.4809**	**0.0277**	**2.3345**	**0.0522**	**2.3867**	**0.6246**	**0.0508**	**0.6754**		**3,026.2000**	**3,026.2000**	**0.1019**	**8.4200e-003**	**3,031.2567**

	ROG	NOx	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	9/1/2020	9/28/2020	5	20	
2	Site Preparation	Site Preparation	9/29/2020	10/5/2020	5	5	
3	Grading	Grading	10/6/2020	10/15/2020	5	8	
4	Building Construction	Building Construction	10/16/2020	9/2/2021	5	230	
5	Paving	Paving	9/3/2021	9/28/2021	5	18	
6	Architectural Coating	Architectural Coating	9/29/2021	10/22/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 81,000; Non-Residential Outdoor: 27,000; Striped Parking Area: 4,800 (Architectural Coating – sqft)

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	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	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	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	56.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	**0.0552**	**0.0390**	**0.3780**	**1.1400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**113.4098**	**113.4098**	**2.7700e-003**		**113.4792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	**0.0552**	**0.0390**	**0.3780**	**1.1400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**113.4098**	**113.4098**	**2.7700e-003**		**113.4792**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0662	0.0468	0.4536	1.3700e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		136.0918	136.0918	3.3300e-003		136.1750
Total	**0.0662**	**0.0468**	**0.4536**	**1.3700e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**136.0918**	**136.0918**	**3.3300e-003**		**136.1750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**8.1298**	**2.1974**	**10.3272**	**4.4688**	**2.0216**	**6.4904**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0662	0.0468	0.4536	1.3700e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		136.0918	136.0918	3.3300e-003		136.1750
Total	**0.0662**	**0.0468**	**0.4536**	**1.3700e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**136.0918**	**136.0918**	**3.3300e-003**		**136.1750**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.5523**	**1.2734**	**7.8258**	**3.3675**	**1.1716**	**4.5390**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	**0.0552**	**0.0390**	**0.3780**	**1.1400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**113.4098**	**113.4098**	**2.7700e-003**		**113.4792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**2.9486**	**1.2734**	**4.2220**	**1.5154**	**1.1716**	**2.6869**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
Total	**0.0552**	**0.0390**	**0.3780**	**1.1400e-003**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**113.4098**	**113.4098**	**2.7700e-003**		**113.4792**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0878	2.5352	0.6842	5.9100e-003	0.1489	0.0125	0.1614	0.0429	0.0120	0.0548		625.5199	625.5199	0.0342		626.3745
Worker	0.2059	0.1456	1.4111	4.2500e-003	0.4600	2.9800e-003	0.4630	0.1220	2.7400e-003	0.1248		423.3966	423.3966	0.0104		423.6555
Total	**0.2937**	**2.6808**	**2.0953**	**0.0102**	**0.6090**	**0.0155**	**0.6244**	**0.1649**	**0.0147**	**0.1796**		**1,048.9166**	**1,048.9166**	**0.0445**		**1,050.0301**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0878	2.5352	0.6842	5.9100e-003	0.1489	0.0125	0.1614	0.0429	0.0120	0.0548		625.5199	625.5199	0.0342		626.3745
Worker	0.2059	0.1456	1.4111	4.2500e-003	0.4600	2.9800e-003	0.4630	0.1220	2.7400e-003	0.1248		423.3966	423.3966	0.0104		423.6555
Total	**0.2937**	**2.6808**	**2.0953**	**0.0102**	**0.6090**	**0.0155**	**0.6244**	**0.1649**	**0.0147**	**0.1796**		**1,048.9166**	**1,048.9166**	**0.0445**		**1,050.0301**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0723	2.2931	0.6162	5.8500e-003	0.1489	5.1000e-003	0.1540	0.0429	4.8700e-003	0.0477		619.5797	619.5797	0.0323		620.3867
Worker	0.1908	0.1300	1.2869	4.1000e-003	0.4600	2.8900e-003	0.4629	0.1220	2.6700e-003	0.1247		408.5405	408.5405	9.2400e-003		408.7716
Total	**0.2630**	**2.4230**	**1.9032**	**9.9500e-003**	**0.6090**	**7.9900e-003**	**0.6169**	**0.1649**	**7.5400e-003**	**0.1724**		**1,028.1202**	**1,028.1202**	**0.0415**		**1,029.1583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0723	2.2931	0.6162	5.8500e-003	0.1489	5.1000e-003	0.1540	0.0429	4.8700e-003	0.0477		619.5797	619.5797	0.0323		620.3867
Worker	0.1908	0.1300	1.2869	4.1000e-003	0.4600	2.8900e-003	0.4629	0.1220	2.6700e-003	0.1247		408.5405	408.5405	9.2400e-003		408.7716
Total	**0.2630**	**2.4230**	**1.9032**	**9.9500e-003**	**0.6090**	**7.9900e-003**	**0.6169**	**0.1649**	**7.5400e-003**	**0.1724**		**1,028.1202**	**1,028.1202**	**0.0415**		**1,029.1583**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.2678					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3618**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
Total	**0.0681**	**0.0464**	**0.4596**	**1.4600e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**145.9073**	**145.9073**	**3.3000e-003**		**145.9899**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.2678					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3618**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
Total	**0.0681**	**0.0464**	**0.4596**	**1.4600e-003**	**0.1643**	**1.0300e-003**	**0.1653**	**0.0436**	**9.5000e-004**	**0.0445**		**145.9073**	**145.9073**	**3.3000e-003**		**145.9899**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1403					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**33.3592**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0375	0.0255	0.2528	8.1000e-004	0.0904	5.7000e-004	0.0909	0.0240	5.2000e-004	0.0245		80.2490	80.2490	1.8200e-003		80.2944
Total	**0.0375**	**0.0255**	**0.2528**	**8.1000e-004**	**0.0904**	**5.7000e-004**	**0.0909**	**0.0240**	**5.2000e-004**	**0.0245**		**80.2490**	**80.2490**	**1.8200e-003**		**80.2944**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1403					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**33.3592**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0375	0.0255	0.2528	8.1000e-004	0.0904	5.7000e-004	0.0909	0.0240	5.2000e-004	0.0245		80.2490	80.2490	1.8200e-003		80.2944
Total	**0.0375**	**0.0255**	**0.2528**	**8.1000e-004**	**0.0904**	**5.7000e-004**	**0.0909**	**0.0240**	**5.2000e-004**	**0.0245**		**80.2490**	**80.2490**	**1.8200e-003**		**80.2944**

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	lb/day										lb/day					
Mitigated	0.5579	2.9356	7.1458	0.0254	2.3345	0.0231	2.3576	0.6246	0.0216	0.6462		2,567.0184	2,567.0184	0.0931		2,569.3446
Unmitigated	0.5579	2.9356	7.1458	0.0254	2.3345	0.0231	2.3576	0.6246	0.0216	0.6462		2,567.0184	2,567.0184	0.0931		2,569.3446

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	376.38	71.28	36.72	829,934	829,934
Parking Lot	0.00	0.00	0.00		
Total	376.38	71.28	36.72	829,934	829,934

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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
General Light Industry	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Parking Lot	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
NaturalGas Unmitigated	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808

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	lb/day										lb/day					
General Light Industry	3902.79	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
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
Total		**0.0421**	**0.3826**	**0.3214**	**2.3000e-003**		**0.0291**	**0.0291**		**0.0291**	**0.0291**		**459.1523**	**459.1523**	**8.8000e-003**	**8.4200e-003**	**461.8808**

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	lb/day										lb/day					
General Light Industry	3.90279	0.0421	0.3826	0.3214	2.3000e-003		0.0291	0.0291		0.0291	0.0291		459.1523	459.1523	8.8000e-003	8.4200e-003	461.8808
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
Total		**0.0421**	**0.3826**	**0.3214**	**2.3000e-003**		**0.0291**	**0.0291**		**0.0291**	**0.0291**		**459.1523**	**459.1523**	**8.8000e-003**	**8.4200e-003**	**461.8808**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Unmitigated	1.3486	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313

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	lb/day										lb/day					
Architectural Coating	0.1634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1839					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2700e-003	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Total	**1.3486**	**1.3000e-004**	**0.0137**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0293**	**0.0293**	**8.0000e-005**		**0.0313**

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	lb/day										lb/day					
Architectural Coating	0.1634					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1839					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2700e-003	1.3000e-004	0.0137	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0313
Total	**1.3486**	**1.3000e-004**	**0.0137**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0293**	**0.0293**	**8.0000e-005**		**0.0313**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Appendix C

Backup Diesel Generator Emissions Calculations

Stationary Source Criteria Pollutants

Emergency Generator (Cummins C3500 D6e) - Full Standby

Gross engine output bhp @ 100% load	5,051
Annual use per generator (Hours)	18
Number of Units	16
Total Annual Hours	288

	HC	NO_x	CO	PM	$PM_{2.5}$
Emissions (full standby) (g-hp/hr)	0.05	6.10	0.40	0.05	0.05
Emissions (full standby) (g/sec)	0.07	8.56	0.56	0.07	0.07
Uncontrolled Emissions (full standby) (lbs/hr)	0.56	67.93	4.45	0.56	0.54
DPF Controlled Emissions (full standby) (lbs/hr)	0.56	67.93	4.45	0.08	0.08
Uncontrolled Emissions Total lbs/year	10.02	1222.69	80.18	10.02	9.78
DPF Controlled Emissions Total lbs/year	10.02	1222.69	80.18	1.50	1.47
	Individual Generator				
DPF Controlled Emissions Total tons/year	0.01	0.61	0.04	0.00	0.00
Daily Avg (lbs/day)	0.03	3.35	0.22	0.00	0.00
	All Generators				
DPF Controlled Emissions Total tons/year	0.08	9.78	0.64	0.01	0.01
Daily Avg (lbs/day)	0.44	53.60	3.51	0.07	0.06

Notes:

1. Exhaust emissions were obtained from the Cummins C3500 D6e emission data sheet (EPA Tier 2)
2. $PM_{2.5}$ estimated as 97.6% of PM from diesel combustion.

Conversions

1lb=453.59g

2000lbs = 1 ton

GHG Emissions for #2 Distillate Diesel Fuel Consumption

		50 Hrs Operation of one Engine		*50 Hrs Operation of all Engines*		*16 Hrs of Operation of One Engine*		*16 Hrs of Operation of All Engines*	
Operation	Fuel Consumption (gals/hr)	Fuel Consumption (gallons)	MT CO_2e	Fuel Consumption (gallons)	MT CO_2e	Fuel Consumption (gallons)	MT CO_2e	Fuel Consumption (gallons)	MT CO_2e
100% load	241	12,050.00	533.82	192,800.00	8,541.04	3,856.00	170.82	61,696.00	2,733.13
75% load	184	9,200.00	407.56	147,200.00	6,520.96	2,944.00	130.42	47,104.00	2,086.71
50% load	134	6,700.00	296.81	107,200.00	4,748.96	2,144.00	94.98	34,304.00	1,519.67
25% load	78	3,900.00	172.77	62,400.00	2,764.32	1,248.00	55.29	19,968.00	884.58

Source: Cat C175-16 Diesel Generator Sets manufacturer specifications

#2 Distillate Diesel Emission factors

kg CO2 per gallon	10.21
kg CH4 per gallon	0.41
kg N2O per gallon	0.08

Source:Federal Register EPA; 40 CFR Part 98; e-CFR, June 13, 2017 (see link below). Table C-1, Table C-2, Table AA-1.

Note: 1 kg = 0.001 Metric Tons (MT)

CO_2 Equivalencies

CO_2	1
CH_4	25
N_2O	298

Source: Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment

Stationary Source Criteria Pollutants

Emergency Generator (Cummins C3500 D6e) - Full Standby

Gross engine output bhp @ 100% load	5,051
Annual use per generator (Hours)	50
Number of Units	16
Total Annual Hours	800

	HC	NO_X	CO	PM	$PM_{2.5}$
Emissions (full standby) (g-hp/hr)	0.05	6.10	0.40	0.05	0.05
Emissions (full standby) (g/sec)	0.07	8.56	0.56	0.07	0.07
Uncontrolled Emissions (full standby) (lbs/hr)	0.56	67.93	4.45	0.56	0.54
DPF Controlled Emissions (full standby) (lbs/hr)	0.56	67.93	4.45	0.08	0.08
Uncontrolled Emissions Total lbs/year	27.84	3396.36	222.71	27.84	27.17
DPF Controlled Emissions Total lbs/year	27.84	3396.36	222.71	4.18	4.08
	Individual Generator				
DPF Controlled Emissions Total tons/year	0.01	1.70	0.11	0.00	0.00
Daily Avg (lbs/day)	0.08	9.31	0.61	0.01	0.01
	All Generators				
DPF Controlled Emissions Total tons/year	0.22	27.17	1.78	0.03	0.03
Daily Avg (lbs/day)	1.22	148.88	9.76	0.18	0.18

Notes:

1. Exhaust emissions were obtained from the Cummins C3500 D6e emission data sheet (EPA Tier 2)
2. $PM_{2.5}$ estimated as 97.6% of PM from diesel combustion.

Conversions

1lb=453.59g

2000lbs = 1 ton

GHG Emissions for #2 Distillate Diesel Fuel Consumption

		50 Hrs Operation of one Engine		*50 Hrs Operation of all Engines*		*16 Hrs of Operation of One Engine*		*16 Hrs of Operation of All Engines*	
Operation	Fuel Consumption (gals/hr)	Fuel Consumption (gallons)	MT CO_2e	Fuel Consumption (gallons)	MT CO_2e	Fuel Consumption (gallons)	MT CO_2e	Fuel Consumption (gallons)	MT CO_2e
100% load	241	12,050.00	533.82	192,800.00	8,541.04	3,856.00	170.82	61,696.00	2,733.13
75% load	184	9,200.00	407.56	147,200.00	6,520.96	2,944.00	130.42	47,104.00	2,086.71
50% load	134	6,700.00	296.81	107,200.00	4,748.96	2,144.00	94.98	34,304.00	1,519.67
25% load	78	3,900.00	172.77	62,400.00	2,764.32	1,248.00	55.29	19,968.00	884.58

Source: Cat C175-16 Diesel Generator Sets manufacturer specifications

#2 Distillate Diesel Emission factors

kg CO2 per gallon	10.21
kg CH4 per gallon	0.41
kg N2O per gallon	0.08

Source:Federal Register EPA; 40 CFR Part 98; e-CFR, June 13, 2017 (see link below). Table C-1, Table C-2, Table AA-1.

Note: 1 kg = 0.001 Metric Tons (MT)

CO_2 Equivalencies

CO_2	1
CH_4	25
N_2O	298

Source: Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment

Appendix D

Health Risk Calculations

Step 1: Enter Facility Data	
Plant Name	CoreSite Santa Clara Data Center SV9
Plant No.	

Step 3: Specify Source Type	
Does facility have only diesel backup generators?	yes
Is this analysis for a gas station?	no

Step 2: Estimate Distance	
What is the distance (m) from the facility boundary to the MEI?	

Step 5: Read Estimates		
Total Cancer Risk	253.204	per 1,000,000
Total Chronic Hazard	0.068	
Total PM2.5 Concentration	0.340	µg/m³

Step 2: Enter Emissions Data

Chemical Name	CAS No.	Emission	Cancer	Chronic	Concentration
	(dashes removed)	(lb/day)	(# / 1,000,000)	(Index)	(µg/m3)
Fine Particulate Matter (PM2.5)		1.80E-01			0.34
ACETALDEHYDE	75070	0.00E+00			
ACETAMIDE	60355	0.00E+00			
ACROLEIN	107028	0.00E+00			
ACRYLAMIDE	79061	0.00E+00			
ACRYLIC ACID	79107	0.00E+00			
ACRYLONITRILE	107131	0.00E+00			
ALLYL CHLORIDE	107051	0.00E+00			
2-AMINOANTHRAQUINONE	117793	0.00E+00			
AMMONIA	7664417	0.00E+00			
ANILINE	62533	0.00E+00			
ARSENIC AND COMPOUNDS (INORGANIC)[1,2]	7440382	0.00E+00			
ARSINE	7784421	0.00E+00			
ASBESTOS[3]	1332214	0.00E+00			
BENZENE[1]	71432	0.00E+00			
BENZIDINE (AND ITS SALTS) values also apply to:	92875	0.00E+00			
Benzidine based dyes	92875	0.00E+00			
Direct Black 38	1937377	0.00E+00			
Direct Blue 6	2602462	0.00E+00			
Direct Brown 95 (technical grade)	16071866	0.00E+00			
BENZYL CHLORIDE	100447	0.00E+00			
BERYLLIUM AND COMPOUNDS[2]	7440417	0.00E+00			
BIS(2-CHLOROETHYL)ETHER (Dichloroethyl ether)	111444	0.00E+00			
BIS(CHLOROMETHYL)ETHER	542881	0.00E+00			
BROMINE AND COMPOUNDS see Potassium Bromate	7758012	0.00E+00			
1,3-BUTADIENE	106990	0.00E+00			
CADMIUM AND COMPOUNDS[2]	7440439	0.00E+00			
CAPROLACTAM	105602	0.00E+00			
CARBON DISULFIDE[1]	75150	0.00E+00			
CARBON MONOXIDE	630080	0.00E+00			
CARBON TETRACHLORIDE[1] (Tetrachloromethane)	56235	0.00E+00			
CHLORINATED PARAFFINS	108171262	0.00E+00			
CHLORINE	7782505	0.00E+00			
CHLORINE DIOXIDE	10049044	0.00E+00			
4-CHLORO-O-PHENYLENEDIAMINE	95830	0.00E+00			
CHLOROBENZENE	108907	0.00E+00			
CHLOROFORM[1]	67663	0.00E+00			
Chlorophenols	87865	0.00E+00			
PENTACHLOROPHENOL	87865	0.00E+00			
2,4,6-TRICHLOROPHENOL	88062	0.00E+00			
CHLOROPICRIN	76062	0.00E+00			
p-CHLORO-o-TOLUIDINE	95692	0.00E+00			
CHROMIUM 6+[2]	18540299	0.00E+00			
Barium chromate[2]	10294403	0.00E+00			
Calcium chromate[2]	13765190	0.00E+00			
Lead chromate[2]	7758976	0.00E+00			
Sodium dichromate[2]	10588019	0.00E+00			
Strontium chromate[2]	7789062	0.00E+00			
CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00			
COPPER AND COMPOUNDS	7440508	0.00E+00			
p-CRESIDINE	120718	0.00E+00			
CRESOLS	1319773	0.00E+00			
M-CRESOL	108394	0.00E+00			
O-CRESOL	95487	0.00E+00			
P-CRESOL	106445	0.00E+00			

	CUPFERRON	135206	0.00E+00				
	Cyanide And Compounds (inorganic)	57125	0.00E+00				
	HYDROGEN CYANIDE (Hydrocyanic acid)	74908	0.00E+00				
	2,4-DIAMINOANISOLE	615054	0.00E+00				
	2,4-DIAMINOTOLUENE	95807	0.00E+00				
	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	96128	0.00E+00				
	1,4-DICHLOROBENZENE (p-Dichlorobenzene)	106467	0.00E+00				
	3,3-DICHLOROBENZIDINE	91941	0.00E+00				
	1,1,-DICHLOROETHANE (Ethylidene dichloride)	75343	0.00E+00				
	DI(2-ETHYLHEXYL)PHTHALATE (DEHP)	117817	0.00E+00				
	DIETHANOLAMINE	111422	0.00E+00				
	p-DIMETHYLAMINOAZOBENZENE	60117	0.00E+00				
	N,N-DIMETHYL FORMAMIDE	68122	0.00E+00				
	2,4-DINITROTOLUENE	121142	0.00E+00				
	1,4-DIOXANE (1,4-Diethylene dioxide)	123911	0.00E+00				
	EPICHLOROHYDRIN (1-Chloro-2,3-epoxypropane)	106898	0.00E+00				
	1,2-EPOXYBUTANE	106887	0.00E+00				
	ETHYL BENZENE	100414	0.00E+00				
	ETHYL CHLORIDE (Chloroethane)	75003	0.00E+00				
	ETHYLENE DIBROMIDE (1,2-Dibromoethane)	106934	0.00E+00				
	ETHYLENE DICHLORIDE (1,2-Dichloroethane)	107062	0.00E+00				
	ETHYLENE GLYCOL	107211	0.00E+00				
	ETHYLENE OXIDE (1,2-Epoxyethane)	75218	0.00E+00				
	ETHYLENE THIOUREA	96457	0.00E+00				
	Fluorides	1101	0.00E+00				
	HYDROGEN FLUORIDE (Hydrofluoric acid)	7664393	0.00E+00				
	FORMALDEHYDE	50000	0.00E+00				
	GLUTARALDEHYDE	111308	0.00E+00				
	GLYCOL ETHERS	107211	0.00E+00				
	ETHYLENE GLYCOL BUTYL ETHER – EGBE	111762	0.00E+00				
	ETHYLENE GLYCOL ETHYL ETHER – EGEE [1]	110805	0.00E+00				
	ETHYLENE GLYCOL ETHYL ETHER ACETATE – EGEEÅ	111159	0.00E+00				
	ETHYLENE GLYCOL METHYL ETHER – EGME [1]	109864	0.00E+00				
	ETHYLENE GLYCOL METHYL ETHER ACETATE – EGMEA	110496	0.00E+00				
	HEXACHLOROBENZENE	118741	0.00E+00				
	HEXACHLOROCYCLOHEXANES (mixed or technical grade)	608731	0.00E+00				
	alpha-HEXACHLOROCYCLOHEXANE	319846	0.00E+00				
	beta- HEXACHLOROCYCLOHEXANE	319857	0.00E+00				
	gamma-HEXACHLOROCYCLOHEXANE (Lindane)	58899	0.00E+00				
	n-HEXANE	110543	0.00E+00				
	HYDRAZINE	302012	0.00E+00				
	HYDROCHLORIC ACID (Hydrogen chloride)	7647010	0.00E+00				
	HYDROGEN SULFIDE	7783064	0.00E+00				
	ISOPHORONE	78591	0.00E+00				
	ISOPROPYL ALCOHOL (Isopropanol)	67630	0.00E+00				
	LEAD AND COMPOUNDS [2,4] (inorganic) *values also apply to:*	7439921	0.00E+00				
	Lead acetate [2]	301042	0.00E+00				
	Lead phosphate [2]	7446277	0.00E+00				
	Lead subacetate [2]	1335326	0.00E+00				
	LINDANE [see gamma-Hexachlorocyclohexanes]	58899	0.00E+00				
	MALEIC ANHYDRIDE	108316	0.00E+00				
	MANGANESE AND COMPOUNDS	7439965	0.00E+00				
	MERCURY AND COMPOUNDS (INORGANIC)	7439976	0.00E+00				
	Mercuric chloride	7487947	0.00E+00				
	METHANOL	67561	0.00E+00				
	METHYL BROMIDE (Bromomethane)	74839	0.00E+00				
	METHYL tertiary-BUTYL ETHER	1634044	0.00E+00				
	METHYL CHLOROFORM (1,1,1-Trichloroethane)	71556	0.00E+00				
	METHYL ETHYL KETONE (2-Butanone)	78933	0.00E+00				
	METHYL ISOCYANATE	624839	0.00E+00				
	4,4'-METHYLENE BIS (2-CHLOROANILINE) (MOCA)	101144	0.00E+00				
	METHYLENE CHLORIDE (Dichloromethane)	75092	0.00E+00				
	4,4'-METHYLENE DIANILINE (AND ITS DICHLORIDE)	101779	0.00E+00				
	METHYLENE DIPHENYL ISOCYANATE	101688	0.00E+00				
	MICHLER'S KETONE (4,4'-Bis(dimethylamino)benzophenone)	90948	0.00E+00				
	N-NITROSODI-n-BUTYLAMINE	924163	0.00E+00				
	N-NITROSODI-n-PROPYLAMINE	621647	0.00E+00				
	N-NITROSODIETHYLAMINE	55185	0.00E+00				
	N-NITROSODIMETHYLAMINE	62759	0.00E+00				
	N-NITROSODIPHENYLAMINE	86306	0.00E+00				
	N-NITROSO-N-METHYLETHYLAMINE	10595956	0.00E+00				
	N-NITROSOMORPHOLINE	59892	0.00E+00				
	N-NITROSOPIPERIDINE	100754	0.00E+00				
	N-NITROSOPYRROLIDINE	930552	0.00E+00				

NAPTHALENE [see Polycylcic aromatic hydrocarbons]	91203	0.00E+00			
NICKEL AND COMPOUNDS[2] *(values also apply to:)*	7440020	0.00E+00			
Nickel acetate[2]	373024	0.00E+00			
Nickel carbonate[2]	3333673	0.00E+00			
Nickel carbonyl[2]	13463393	0.00E+00			
Nickel hydroxide[2]	12054487	0.00E+00			
Nickelocene[2]	1271289	0.00E+00			
NICKEL OXIDE[2]	1313991	0.00E+00			
Nickel refinery dust from the pyrometallurgical process[2]	1146	0.00E+00			
Nickel subsulfide[2]	12035722	0.00E+00			
NITRIC ACID	7697372	0.00E+00			
NITROGEN DIOXIDE	10102440	0.00E+00			
p-NITROSODIPHENYLAMINE	156105	0.00E+00			
OZONE	10028156	0.00E+00			
PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES	85105	1.80E-01	2.53E+02	6.80E-02	
PERCHLOROETHYLENE (Tetrachloroethylene)	127184	0.00E+00			
PHENOL	108952	0.00E+00			
PHOSGENE	75445	0.00E+00			
PHOSPHINE	7803512	0.00E+00			
PHOSPHORIC ACID	7664382	0.00E+00			
PHTHALIC ANHYDRIDE	85449	0.00E+00			
PCB (POLYCHLORINATED BIPHENYLS)	1336363	0.00E+00			
POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) (Treated as 2,3,7,8-TCDD for HRA) [2,7]	1746016	0.00E+00			
POLYCHLORINATED DIBENZOFURANS (PCDF) (Treated as 2,3,7,8-TCDD for HRA) 2,7	1746016	0.00E+00			
POLYCYCLIC AROMATIC HYDROCARBON[2] (PAH) (AS B(a)P-EQUIV)[2]	50328	0.00E+00			
NAPHTHALENE	91203	0.00E+00			
POTASSIUM BROMATE	7758012	0.00E+00			
1,3-PROPANE SULTONE	1120714	0.00E+00			
PROPYLENE (PROPENE)	115071	0.00E+00			
PROPYLENE GLYCOL MONOMETHYL ETHER	107982	0.00E+00			
PROPYLENE OXIDE	75569	0.00E+00			
SELENIUM AND COMPOUNDS	7782492	0.00E+00			
HYDROGEN SELENIDE	7783075	0.00E+00			
Selenium sulfide	7446346	0.00E+00			
SILICA (Crystalline, Respirable)	7631869	0.00E+00			
SODIUM HYDROXIDE	1310732	0.00E+00			
STYRENE	100425	0.00E+00			
SULFATES	9960	0.00E+00			
SULFUR DIOXIDE	7446095	0.00E+00			
SULFURIC ACID	7664939	0.00E+00			
SULFUR TRIOXIDE	7446719	0.00E+00			
OLEUM	8014957	0.00E+00			
1,1,2,2-TETRACHLOROETHANE	79345	0.00E+00			
THIOACETAMIDE	62555	0.00E+00			
TOLUENE	108883	0.00E+00			
Toluene diisocyantates	26471625	0.00E+00			
TOLUENE-2,4-DIISOCYANATE	584849	0.00E+00			
TOLUENE-2,6-DIISOCYANATE	91087	0.00E+00			
1,1,2-TRICHLOROETHANE (Vinyl trichloride)	79005	0.00E+00			
TRICHLOROETHYLENE	79016	0.00E+00			
TRIETHYLAMINE	121448	0.00E+00			
URETHANE (Ethyl carbamate)	51796	0.00E+00			
Vanadium Compounds	7440622	0.00E+00			
Vanadium (fume or dust)	7440622	0.00E+00			
VANADIUM PENTOXIDE	1314621	0.00E+00			
VINYL ACETATE	108054	0.00E+00			
VINYL CHLORIDE (Chloroethylene)	75014	0.00E+00			
VINYLIDENE CHLORIDE (1,1-Dichloroethylene)	75354	0.00E+00			
XYLENES (mixed isomers)	1330207	0.00E+00			
m-XYLENE	108383	0.00E+00			
o-XYLENE	95476	0.00E+00			
p-XYLENE	106423	0.00E+00			
		TOTAL UNADJUSTED Risk Values	**253.204**	**0.068**	**0.340**

Diesel Internal Combustion (IC) Engine Distance Multiplier Tool: This distance multiplier tool refines the screening values for cancer risk and PM2.5 concentrations found in the District's Stationary Source Screening Analysis Tool for permitted facilities which contain only diesel IC engines, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Diesel Backup Generator

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Cancer Risk	Adjusted Cancer Risk	Enter Hazard	Adjusted Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0		0
5	16.4	1.000		0		0		0
10	32.8	1.000		0		0		0
15	49.2	1.000		0		0		0
20	65.6	1.000		0		0		0
25	82.0	0.85		0		0		0
30	98.4	0.73		0		0		0
35	114.8	0.64		0		0		0
40	131.2	0.58		0		0		0
50	164.0	0.5		0		0		0
60	196.9	0.41		0		0		0
70	229.7	0.31		0		0		0
80	262.5	0.28		0		0		0
90	295.3	0.25		0		0		0
100	328.1	0.22		0		0		0
110	360.9	0.18		0		0		0
120	393.7	0.16		0		0		0
130	426.5	0.15		0		0		0
140	459.3	0.14		0		0		0
150	492.1	0.12		0		0		0
160	524.9	0.1		0		0		0
180	590.6	0.09		0		0		0
200	656.2	0.08		0		0		0
220	721.8	0.07		0		0		0
240	787.4	0.06		0		0		0
260	853.0	0.05		0		0		0
280	918.6	0.04		0		0		0
300	984.3	0.04		0		0		0
320	1049.9	0.04		0		0		0
340	1115.5	0.04		0		0		0
360	1181.1	0.03		0		0		0
380	1246.7	0.03		0		0		0
400	1312.3	0.03		0		0		0
420	1378.0	0.03	253.204	6.774623798	0.068	0.00181938	0.34	0.009096902
440	1443.6	0.03		0		0		0
460	1509.2	0.02		0		0		0
480	1574.8	0.02		0		0		0
500	1640.4	0.02		0		0		0
520	1706.0	0.02		0		0		0
540	1771.7	0.02		0		0		0
560	1837.3	0.02		0		0		0
580	1902.9	0.02		0		0		0
600	1968.5	0.02		0		0		0
620	2034.1	0.02		0		0		0
640	2099.7	0.01		0		0		0
660	2165.4	0.01		0		0		0
680	2231.0	0.01		0		0		0
700	2296.6	0.01		0		0		0
720	2362.2	0.01		0		0		0
740	2427.8	0.01		0		0		0
760	2493.4	0.01		0		0		0
780	2559.1	0.01		0		0		0
800	2624.7	0.01		0		0		0

* Distance adjustment multipler was extrapolated based on the best fit trendline of the relationship between distance and multipler provided by BAAQMD. The best fit trendline had an R^2 of 0.98 based on the following equation: $y = 203.45x^{-1.207}$

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara	
Roadway Direction	East-West	
Side of the Roadway	South	
Distance from Roadway	1000	feet
Annual Average Daily Traffic (ADT)	50,560	

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

0.077 ($\mu g/m^3$)

Cancer Risk

3.08 (per million)

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using CALINE4 air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Generic Distance Multiplier Tool: This distance multiplier tool refines the screening values to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Universal Semiconductor Technology, Inc. (Plant Number 17945)

Generic Case

Distance (meters)	Distance (feet)	Multiplier	Enter Cancer Risk	Adjusted Cancer Risk	Enter Hazard	Adjusted Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0		0
5	16.4	1.000		0		0		0
10	32.8	0.883		0		0		0
15	49.2	0.855		0		0		0
20	65.6	0.827		0		0		0
25	82.0	0.801		0		0		0
30	98.4	0.775		0		0		0
35	114.8	0.750		0		0		0
40	131.2	0.726		0		0		0
45	147.6	0.702		0		0		0
50	164.0	0.679		0		0		0
55	180.4	0.658		0		0		0
60	196.9	0.636		0		0		0
65	213.3	0.616		0		0		0
70	229.7	0.596		0		0		0
75	246.1	0.577		0		0		0
80	262.5	0.558		0		0		0
85	278.9	0.540		0		0		0
90	295.3	0.523		0		0		0
95	311.7	0.506		0		0		0
100	328.1	0.489		0		0		0
105	344.5	0.474		0		0		0
110	360.9	0.458		0		0		0
115	377.3	0.444		0		0		0
120	393.7	0.429		0		0		0
125	410.1	0.415		0		0		0
130	426.5	0.402		0		0		0
135	442.9	0.389		0		0		0
140	459.3	0.376		0		0		0
145	475.7	0.364		0		0		0
150	492.1	0.353		0		0		0
155	508.5	0.341		0		0		0
160	524.9	0.330		0		0		0
165	541.3	0.319		0		0		0
170	557.7	0.309		0		0		0
175	574.1	0.299		0		0		0
180	590.6	0.290		0		0		0
185	607.0	0.280		0		0		0
190	623.4	0.271		0		0		0
195	639.8	0.262		0		0		0
200	656.2	0.254		0		0		0
205	672.6	0.246		0		0		0
210	689.0	0.238		0		0		0
215	705.4	0.230		0		0		0
220	721.8	0.223		0		0		0
225	738.2	0.216		0		0		0
230	754.6	0.209		0		0		0
235	771.0	0.202		0		0		0
240	787.4	0.195		0		0		0
245	803.8	0.189		0		0		0
250	820.2	0.183		0		0		0
255	836.6	0.177		0		0		0
260	853.0	0.171		0		0		0
265	869.4	0.166		0		0		0
270	885.8	0.160		0		0		0
275	902.2	0.155		0		0		0
280	918.6	0.150		0		0		0
285	935.0	0.145		0		0		0
290	951.4	0.141		0		0		0
295	967.8	0.136		0		0		0
300	984.3	0.132	10.54	1.388609143	0.007	0.000922226	0.018	0.002371439

Diesel Internal Combustion (IC) Engine Distance Multiplier Tool: This distance multiplier tool refines the screening values for cancer risk and PM2.5 concentrations found in the District's Stationary Source Screening Analysis Tool for permitted facilities which contain only diesel IC engines, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

ON Semiconductor Inc. (Plant Number 19856)

Diesel Backup Generator

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Cancer Risk	Adjusted Cancer Risk	Enter Hazard	Adjusted Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0		0
5	16.4	1.000		0		0		0
10	32.8	1.000		0		0		0
15	49.2	1.000		0		0		0
20	65.6	1.000		0		0		0
25	82.0	0.85		0		0		0
30	98.4	0.73		0		0		0
35	114.8	0.64		0		0		0
40	131.2	0.58		0		0		0
50	164.0	0.5		0		0		0
60	196.9	0.41		0		0		0
70	229.7	0.31		0		0		0
80	262.5	0.28		0		0		0
90	295.3	0.25		0		0		0
100	328.1	0.22		0		0		0
110	360.9	0.18		0		0		0
120	393.7	0.16		0		0		0
130	426.5	0.15		0		0		0
140	459.3	0.14		0		0		0
150	492.1	0.12		0		0		0
160	524.9	0.1		0		0		0
180	590.6	0.09		0		0		0
200	656.2	0.08		0		0		0
220	721.8	0.07		0		0		0
240	787.4	0.06		0		0		0
260	853.0	0.05		0		0		0
280	918.6	0.04	13.08	0.5232	0.005	0.0002	0.023	0.00092

Diesel Internal Combustion (IC) Engine Distance Multiplier Tool: This distance multiplier tool refines the screening values for cancer risk and PM2.5 concentrations found in the District's Stationary Source Screening Analysis Tool for permitted facilities which contain only diesel IC engines, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

NVIDIA (Plant Number 13074)

Diesel Backup Generator

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Cancer Risk	Adjusted Cancer Risk	Enter Hazard	Adjusted Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0		0
5	16.4	1.000		0		0		0
10	32.8	1.000		0		0		0
15	49.2	1.000		0		0		0
20	65.6	1.000		0		0		0
25	82.0	0.85		0		0		0
30	98.4	0.73		0		0		0
35	114.8	0.64		0		0		0
40	131.2	0.58		0		0		0
50	164.0	0.5		0		0		0
60	196.9	0.41		0		0		0
70	229.7	0.31		0		0		0
80	262.5	0.28		0		0		0
90	295.3	0.25		0		0		0
100	328.1	0.22		0		0		0
110	360.9	0.18		0		0		0
120	393.7	0.16		0		0		0
130	426.5	0.15		0		0		0
140	459.3	0.14		0		0		0
150	492.1	0.12		0		0		0
160	524.9	0.1		0		0		0
180	590.6	0.09		0		0		0
200	656.2	0.08		0		0		0
220	721.8	0.07		0		0		0
240	787.4	0.06		0		0		0
260	853.0	0.05		0		0		0
280	918.6	0.04	63.63	2.5452	0.022	0.00088	0.113	0.00452

Appendix E

Electricity Usage GHG Calculations

CirclePoint Data Center

Maximum Annual Electricity Usage (MWh)
420,480.00

Utility or Grid	Energy Intensity Factor (MT/MWh)	Maximum Annual CO_2e Emissions (MT/year)
California-wide average (eGRID 2016)	0.26395	110,985.70
Silicon Valley Power (2019 Factor)	0.1547	65,048.26
Silicon Valley Power (2030 Factor)	0.0821	34,521.41

Notes

- Total electricity usage sourced from PD

- SVP 2019 and 2030 emissions factors CO2e were calculated by dividing the total GHG emissions from identified 2030 supply sources by the 2030 projected total energy from supply resources. Source: https://www.siliconvalleypower.com/home/showdocument?id=62481

Appendix F

N_2O Mobile Source Emissions Calculations

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 19-07539 Santa Clara Data Center SV9

Vehicle Population Breakdown*	
5460005	Gasoline vehicles
271191	Diesel vehicles
95.3%	Gasoline vehicle %
4.7%	Diesel vehicle %

VMT per Vehicle Type	
162041	Project VMT (CalEEMod output)
154373	Gasoline vehicle VMT
7668	Diesel vehicle VMT

Gasoline Vehicles	
95.3%	Gasoline vehicle %
0.0804	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.08	Gasoline vehicle tons per year NOX emissions
0.0102	Tons per year N2O emissions for gasoline vehicles**
0.0093	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
22.99	Diesel average miles per gallon*
0.06961	grams per mile N2O for diesel vehicles
533.7	grams per year N2O for diesel vehicles
0.0005337	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.0098	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
2.9	**CO2e emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources

***Vehicle population source:**
EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Air District
Region: BAY AREA AQMD
Calendar Year: 2030
Season: Annual
Vehicle Classification: EMFAC2011 Categories

****Methodology source:**
EMFAC2017 Volume III - Technical Documentation
https://www.arb.ca.gov/msei/emfac2011-faq.htm

*****GWP source:**
Intergovernmental Panel on Climate Change (IPCC). 2007.
AR4 Climate Change 2007: The Physical Science Basis.
Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.