ATTACHMENT 2
Air Quality and Greenhouse Gas Emission Impact Assessment

AIR QUALITY & GREENHOUSE GAS IMPACT ASSESSMENT

FOR THE PROPOSED

BULLOCK RANCH PROJECT

SAN LUIS OBISPO, CA

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INTRODUCTION

This report provides an analysis of air quality and greenhouse gas impacts associated with the proposed Bullock Ranch Project (project). This report also provides a summary of existing conditions in the project area and the applicable regulatory framework pertaining to air quality and climate change.

PROPOSED PROJECT SUMMARY

The proposed Bullock Ranch Project includes a total of 192 residential units, including 96 apartments, 88 bungalows, and 8 live-work units, and approximately 433 on-site parking spaces. The project site is located within the Orcutt Area Specific Plan (OASP). The OASP shows medium-high density residential on the project site, consistent with the proposed project's land use. The proposed project's site plan is depicted in Figure 1.

AIR QUALITY

Existing Setting

The project is located in the City of San Luis Obispo, within the South Central Coast Air Basin (SCCAB) and within the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD). Air quality in the SCCAB is influenced by a variety of factors, including topography, local and regional meteorology.

Topography

The City of San Luis Obispo is in the coastal plateau. The coastal plateau is about five to ten miles wide and varies in elevation from sea level to about 500 feet. It is bounded on the northeast by the Santa Lucia Mountain Range, which extends almost the entire length of the county. Rising sharply to about 3,000 feet at its northern boundary, the Santa Lucia Range gradually winds southward away from the coast, finally merging into a mass of rugged features on the north side of Cuyama Canyon. Point Buchon juts into the Pacific just south of Morro Bay to form the protective harbor of San Luis Obispo Bay. The Irish Hills are the dominant feature on this knob of land, rising abruptly from the shore to form steep cliffs and generally complex terrain from the Los Osos/Montana de Oro State Park area to Pismo Beach. These headlands have a pronounced influence on local wind flow patterns.

Estuaries are also a notable feature of the coastal areas, occurring wherever flowing streams meet the ocean. Morro Bay contains the region's largest estuary, with a saltwater marsh located on the east side where Chorro and Los Osos creeks enter the bay. This is one of the most significant wetlands remaining on the California coast and has been designated part of the National Estuary Program. It provides nesting habitat for blue herons, cranes and other important types of woodland birds and wildlife. Smaller coastal lagoons and marshes are also scattered along the county's shoreline.

Local and Regional Meteorology

The climate of the county can be generally characterized as Mediterranean, with warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. This effect is diminished inland in proportion to the distance from the ocean or by major intervening terrain features, such as the coastal mountain ranges. As a result, inland areas are characterized by a considerably wider range of temperature conditions. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90s. Minimum winter temperatures average from the low 30s along the coast to the low 20s inland (SLOAPCD 2001).

Regional meteorology is largely dominated by a persistent high-pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause seasonal changes in the weather patterns of the area. The Pacific High remains generally fixed several hundred miles offshore from May through September, enhancing onshore winds and opposing offshore winds. During spring

Figure 1. Proposed Project Site Plan

Source: KTGY Architecture and Planning

and early summer, as the onshore breezes pass over the cool water of the ocean, fog and low clouds often form in the marine air layer along the coast. Surface heating in the interior valleys dissipates the marine layer as it moves inland (SLOAPCD 2001).

From November through April the Pacific High tends to migrate southward, allowing northern storms to move across the county. About 90 percent of the total annual rainfall is received during this period. Winter conditions are usually mild, with intermittent periods of precipitation followed by mostly clear days. Rainfall amounts can vary considerably among different regions in the county. In the Coastal Plain, annual rainfall averages 16 to 28 inches, while the Upper Salinas River Valley generally receives about 12 to 20 inches of rain. The Carrizo Plain is the driest area of the county with less than 12 inches of rain in a typical year (SLOAPCD 2001).

Airflow around the county plays an important role in the movement and dispersion of pollutants. The speed and direction of local winds are controlled by the location and strength of the Pacific High-pressure system and other global patterns, by topographical factors, and by circulation patterns resulting from temperature differences between the land and sea. In spring and summer months, when the Pacific High attains its greatest strength, onshore winds from the northwest generally prevail during the day. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze (SLOAPCD 2001).

In the Fall, onshore surface winds decline and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This, along with the diurnal alternation of land-sea breeze circulation, can sometimes produce a "sloshing" effect. Under these conditions, pollutants may accumulate over the ocean for a period of one or more days and are subsequently carried back onshore with the return of the sea breeze. Strong inversions can form at this time, "trapping" pollutants near the surface (SLOAPCD 2001).

This effect is intensified when the Pacific High weakens or moves inland to the east. This may produce a "Santa Ana" condition in which air, often pollutant-laden, is transported into the county from the east and southeast. This can occur over a period of several days until the high-pressure system returns to its normal location, breaking the pattern. The breakup of a Santa Ana condition may result in relatively stagnant conditions and a buildup of pollutants offshore. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they combine with local emissions to cause high pollutant concentrations. Not all occurrences of the "post-Santa Ana" condition lead to high ambient pollutant levels, but it does play an important role in the air pollution meteorology of the county (SLOAPCD 2001).

Atmospheric Stability and Dispersion

Air pollutant concentrations are primarily determined by the amount of pollutant emissions in an area and the degree to which these pollutants are dispersed into the atmosphere. The stability of the atmosphere is one of the key factors affecting pollutant dispersion. Atmospheric stability regulates the amount of vertical and horizontal air exchange or mixing, that can occur within a given air basin. Restricted mixing and low wind speeds are generally associated with a high degree of stability in the atmosphere. These conditions are characteristic of temperature inversions (SLOAPCD 2001).

In the atmosphere, air temperatures normally decrease as altitude increases. At varying distances above the earth's surface, however, a reversal of this gradient can occur. This condition termed an inversion, is simply a warm layer of air above a layer of cooler air, and it has the effect of limiting the vertical dispersion of pollutants. The height of the inversion determines the size of the mixing volume trapped below. Inversion strength or intensity is measured by the thickness of the layer and the difference in temperature between the base and the top of the inversion. The strength of the inversion determines how easily it can be broken by winds or solar heating (SLOAPCD 2001).

Several types of inversions are common to this area. Weak, surface inversions are caused by radiational cooling of air in contact with the cold surface of the earth at night. In valleys and low lying areas, this condition is intensified by the addition of cold air flowing downslope from the hills and pooling on the valley floor. Surface inversions are a common occurrence throughout the county during the winter, particularly on cold mornings when the inversion is strongest. As the morning sun warms the earth and the air near the ground, the inversion lifts, gradually dissipating as the day progresses. During the late spring and early summer months, cool air over the ocean can intrude under the relatively warmer air over land, causing a marine

inversion. These inversions can restrict dispersion along the coast, but they are typically shallow and will dissipate with surface heating (SLOAPCD 2001).

In contrast, in the summertime, the presence of the Pacific high-pressure cell can cause the air mass aloft to sink. As the air descends, compressional heating warms it to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion, is common to all of coastal California and can act as a nearly impenetrable lid to the vertical mixing of pollutants. The base of the inversion typically ranges from 1000 to 2500 feet above sea level; however, levels as low as 250 feet, among the lowest anywhere in the state, have been recorded on the coastal plateau in San Luis Obispo county. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and the buildup of pollutants. Highest or worst-case ozone levels are often associated with the presence of this type of inversion (SLOAPCD 2001).

Criteria Air Pollutants

For the protection of public health and welfare, the Clean Air Act (CAA) required that the United States Environmental Protection Agency (U.S. EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants because the US EPA publishes criteria documents to justify the choice of standards. These standards define the maximum amount of an air pollutant that can be present in ambient air without harm to the public's health. An ambient air quality standard is generally specified as a concentration averaged over a specific time period, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. The CAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report.

Human Health & Welfare Effects

Common air pollutants and associated adverse health and welfare effects are summarized in Table 1. Within the SCCAB, the air pollutants of primary concern, with regard to human health, include ozone, particulate matter (PM) and carbon monoxide (CO). As depicted in Table 1, exposure to increased pollutant concentrations of ozone, PM and CO can result in various heart and lung ailments, cardiovascular and nervous system impairment, and death.

Table 1. Common Pollutants & Adverse Effects

Pollutant	Human Health & Welfare Effects
Particulate Matter (PM_{10} & $PM_{2.5}$)	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Ozone (O_3)	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Sulfur Dioxide (SO_2)	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility. A precursor to acid rain.
Carbon Monoxide (CO)	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	Respiratory irritant; aggravates lung and heart problems. A precursor to ozone and acid rain. Contributes to global warming, and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: ARB 2018

Odors

Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (i.e. irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache.

Neither the state nor the federal governments have adopted rules or regulations for the control of odor sources. The SLOAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be applicable to SLOAPCD's Rule 402, Nuisance. Any actions related to odors would be based on citizen complaints to local governments and the SLOAPCD. The SLOAPCD recommends that odor impacts be addressed in a qualitative manner. Such analysis shall determine if the project results in excessive nuisance odors, as defined under the California Code of Regulations, Health & Safety Code Section 41700, air quality public nuisance.

Toxic Air Contaminants

Toxic air contaminants (TACs) are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for which state and federal governments have set ambient air quality standards. TACs, therefore, are not considered "criteria pollutants" under either the Federal Clean Air Act (FCAA) or the California Clean Air Act (CCAA) and are thus not subject to National or State AAQS. TACs are not considered criteria pollutants in that the federal and California Clean Air Acts do not address them specifically through the setting of National or State AAQS. Instead, the U.S. EPA and ARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology to limit emissions. In conjunction with District rules, these federal and state statutes and regulations establish the regulatory framework for TACs. At the national levels, the U.S. EPA has established National Emission Standards for HAPs (NESHAPs), in accordance with the requirements of the FCAA and subsequent amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

Within California, TACs are regulated primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

At the state level, the ARB has authority for the regulation of emissions from motor vehicles, fuels, and consumer products. Most recently, Diesel-exhaust particulate matter (DPM) was added to the ARB list of TACs. DPM is the primary TACs of concern for mobile sources. Of all controlled TACs, emissions of DPM are estimated to be responsible for about 70 percent of the total ambient TAC risk. The ARB has made the reduction of the public's exposure to DPM one of its highest priorities, with an aggressive plan to require cleaner diesel fuel and cleaner diesel engines and vehicles (ARB 2005).

At the local level, air districts have authority over stationary or industrial sources. All projects that require air quality permits from the SLOAPCD are evaluated for TAC emissions. The SLOAPCD limits emissions and public exposure to TACs through a number of programs. The SLOAPCD prioritizes TAC-emitting stationary sources, based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. The SLOAPCD requires a comprehensive health risk assessment for facilities that are classified in the significant-risk category, pursuant to AB 2588. No major existing sources of TACs have been identified in the project area.

Asbestos

Asbestos is the common name for a group of naturally-occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Naturally-occurring asbestos, which was identified as a TAC in 1986 by ARB, is located in many parts of California and is commonly associated with ultramafic rock. The project site is not located within an area identified as having a potential for naturally-occurring ultramafic rock and serpentine soils.

Asbestos-containing material may be present in existing structures. The demolition of existing structures may be subject to regulatory requirements for the control of ACM. A summary of applicable regulatory requirements is included in Appendix A.

Ambient Air Quality

Air pollutant concentrations are measured at several monitoring stations in the SCCAB. The San Luis Obispo-3220 South Higuera St. and Atascadero-Lift Station #5 Monitoring Stations are the closest representative monitoring station with sufficient data to meet U.S. EPA and/or ARB criteria for quality assurance. The monitoring stations record ambient concentrations of ozone, nitrogen dioxide, $PM_{2.5}$, and PM_{10}. Ambient monitoring data was obtained for the last three years of available measurement data (i.e., 2016 through 2018) and is summarized in Table 2. As depicted, the state and federal $PM_{2.5}$ standards were exceeded for one day in 2018. Measured 8-hour ozone, 1-hour ozone, NO_2, and PM_{10} concentrations did not exceed the state and federal ambient air quality standards in the last three years of monitoring.

Table 2. Summary of Ambient Air Quality Monitoring Data

Pollutant	Monitoring Year		
	2016	2017	2018
Ozone (O_3)[1]			
Maximum concentration (1-hour/8-hour average; ppm)	0.067/0.062	0.074/0.067	0.062/0.053
Number of days state/national 1-hour standard exceeded	0/0	0/0	0/0
Number of days state/national 8-hour standard exceeded	0/0	0/0	0/0
Nitrogen Dioxide (NO_2)[2]			
Maximum concentration (1-hour average; ppb)	34.0	39.0	38.0
Annual average (ppb)	4	4	5
Number of days state/national standard exceeded	0/0	0/0	0/0
Suspended Particulate Matter ($PM_{2.5}$)[1]			
Maximum 24-hour concentration (national/state; µg/m3)	21.0/21.0	25.6/25.6	38.4/38.4
Annual average national/state (µg/m3)	NA/NA	6.8/NA	5.8/5.9
Number of days national standard exceeded (measured/calculated)[3]	0/NA	0/0	1/1
Suspended Particulate Matter (PM_{10})[1]			
Maximum concentration (national/state; µg/m3)	42.6/43.2	67.8/70.1	45.4/46.4
Number of days state standard exceeded (measured/calculated)[3]	0/NA	5/NA	0/0
Number of days national standard exceeded (measured/calculated)[3]	0/NA	0/0	0/0

ppm = parts per million by volume, µg/m³ = micrograms per cubic meter, NA=Not Available

1. Based on ambient concentrations obtained from the San Luis Obispo-3220 South Higuera St. Monitoring Station.

2. Based on ambient concentrations obtained from the Atascadero-Lift Station #5 Monitoring Station.

3. Measured days are those days that an actual measurement was greater than the standard. Calculated days are estimated days that measurement would have exceeded the standard had measurements been collected every day.

Source: ARB 2020b

Regulatory Framework

Air quality within the SCCAB is regulated by several jurisdictions including the U.S. EPA, ARB, and the SLOAPCD. Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation.

Federal

U.S. ENVIRONMENTAL PROTECTION AGENCY

At the federal level, the U.S. EPA has been charged with implementing national air quality programs. The U.S. EPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

FEDERAL CLEAN AIR ACT

The FCAA required the US EPA to establish National Ambient Air Quality Standards (NAAQS or National AAQS), and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. NAAQS are summarized in Table 3.

State

CALIFORNIA AIR RESOURCES BOARD

The California Air Resources Board (ARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. Other ARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts, establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The CAAQS are summarized in Table 3. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel, and engine used.

CALIFORNIA CLEAN AIR ACT

The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for Ozone, CO, SO_2, and NO_2 by the earliest practicable date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for the implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

ASSEMBLY BILLS 1807 & 2588 - TOXIC AIR CONTAMINANTS

Within California, TACs are regulated primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

Table 3. Summary of Ambient Air Quality Standards & Attainment Designations

Pollutant	Averaging Time	California Standards****		Federal Standards****	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m³)	Non-Attainment	–	Non-Attainment Eastern SLO County - Attainment Western SLO County***
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)******	
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m³	Non-Attainment	150 µg/m³	Unclassified*/ Attainment
	Annual Arithmetic Mean	20 µg/m³		–	
Fine Particulate Matter (PM2.5)	24 Hour	No State Standard	Attainment	35 µg/m³	Unclassified*/ Attainment
	Annual Arithmetic Mean	12 µg/m³		12.0 µg/m³ *****	
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Unclassified*
	1 Hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	Attainment	0.053 ppm (100 µg/m³)	Unclassified*
	1 Hour	0.18 ppm (330 µg/m³)		100 ppb (196 mg/m³)	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	–	Attainment	0.030 ppm (80 µg/m³)	Unclassified*
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (365 µg/m³)	
	3 Hour	–		0.5 ppm (1300 µg/m³)**	
	1 Hour	0.25 ppm (655 µg/m³)		75 ppb (196 mg/m³)	
Lead*	30 Day Average	1.5 µg/m³	Attainment	–	No Attainment Information
	Calendar Quarter	–		1.5 µg/m³	
	Rolling 3-Month Average*	–		0.15 µg/m³	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	Attainment	No Federal Standards	
Sulfates	24 Hour	25 µg/m³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Attainment		
Vinyl Chloride*	24 Hour	0.01 ppm (26 µg/m³)	No Attainment Information		

* Unclassified (EPA/Federal definition): Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for that pollutant. ** Secondary Standard

*** San Luis Obispo County has been designated non-attainment east of the -120.4 deg Longitude line, in areas of SLO County that are south of latitude 35.45 degrees, and east of the -120.3 degree Longitude line, in areas of SLO County that are north of latitude 35.45 degrees. Map of non-attainment area is available upon request from the APCD. **** For more information on standards visit: http://ww.arb.ca.gov.research/aaqs/aaqs2.pdf

Attainment (EPA/Federal definition): Any area that meets the national primary or secondary ambient air quality standard for that pollutant. (CA definition): State standard was not exceeded during a three year period. ***** Federal PM2.5 Secondary Standard is 15µg/m³

Non-Attainment (EPA/Federal definition): Any area that does not meet, or contributes to an area that does not meet the national primary or secondary ambient air quality standard for that pollutant. (CA definition): State standard was exceeded at least once during a three year period. ******The 2008 NAAQS for 8hr ozone is 0.075 ppm. The 2015 NAAQS for 8hr ozone is 0.070 ppm. The attainment status shown in this table relates to the 2008 and 2015 NAAQS. SLO County has been designated non-attainment of the 2015 NAAQS. NAAQS is National Ambient Air Quality Standards H:\OUTREACH\Attainment\Status Revised January 29, 2019

Source: SLOAPCD 2020a

IN-USE OFF-ROAD DIESEL VEHICLE REGULATION

On July 26, 2007, the ARB adopted a regulation to reduce diesel particulate matter (PM) and oxides of nitrogen (NOx) emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. The regulation applies to self-propelled diesel-fueled vehicles that cannot be registered and licensed to drive on-road, as well as two-engine vehicles that drive on road, with the limited exception of two-engine sweepers. Examples include loaders, crawler tractors, skid steers, backhoes, forklifts, airport ground support equipment, water well drilling rigs, and two-engine cranes. Such vehicles are used in construction, mining, and industrial operations. The regulation does not apply to stationary equipment or portable equipment such as generators. The off-road vehicle regulation establishes emissions performance requirements, reporting, disclosure, and labeling requirements for off-road vehicles, and limits unnecessary idling.

CALIFORNIA BUILDING CODE

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Code is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

GREEN BUILDING STANDARDS

In essence, green buildings standards are indistinguishable from any other building standards. Both standards are contained in the California Building Code and regulate the construction of new buildings and improvements. The only practical distinction between the two is that whereas the focus of traditional building standards has been protecting public health and safety, the focus of green building standards is to improve environmental performance.

AB 32, which mandates the reduction of GHG emissions in California to 1990 levels by 2020, increased the urgency around the adoption of green building standards. In its scoping plan for the implementation of AB 32, ARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25 percent of all such emissions. In recommending a green building strategy as one element of the scoping plan, ARB estimated that green building standards would reduce GHG emissions by approximately 26 MMT of CO_2e by 2020.

The green buildings standards are updated every three years and were most recently updated on May 2018. Referred to as the 2019 Building Energy Efficiency Standards, these most recent updates focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The ventilation measures improve indoor air quality, protecting homeowners from air pollution originating from outdoor and indoor sources. Under the newly adopted standards, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades (CEC 2018).

Local

COUNTY OF SAN LUIS OBISPO AIR POLLUTION CONTROL DISTRICT

The SLOAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions within the region are maintained. Responsibilities of the SLOAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

Impact Analysis

Thresholds of Significance

In accordance with Appendix G of the *State CEQA Guidelines,* air quality impacts associated with the proposed project would be considered significant if it would:

a) Conflict with or obstruct implementation of the applicable air quality plan.

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

c) Expose sensitive receptors to substantial pollutant concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

To assist in the evaluation of air quality impacts, the SLOAPCD has developed recommended significance thresholds, which are contained in the SLOAPCD's *CEQA Air Quality Handbook* (2012). For the purposes of this analysis, project emissions are considered potentially significant impacts if any of the following SLOAPCD thresholds are exceeded:

Construction Impacts

The threshold criteria established by the SLOAPCD to determine the significance and appropriate mitigation level for a project's short-term construction emissions are presented in Table 4 and discussed, as follows (SLOAPCD 2012):

Table 4. SLOAPCD Thresholds of Significance for Project-Level Construction Impacts

Pollutant	Threshold (1)		
	Daily (lbs/day)	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)
Ozone Precursors (ROG + NO_X)	137	2.5	6.3
Diesel Particulate Matter (DPM)	7	0.13	0.32
Fugitive Particulate Matter (PM_{10}), Dust (2)	None	2.5	None

1. Daily and quarterly emissions thresholds are based on the California Health & Safety Code and the ARB Carl Moyer Guidelines.
2. Any project with a grading area greater than 4.0 acres of a worked area can exceed the 2.5 tons PM10 quarterly threshold.
Source: SLOAPCD 2012

ROG and NOx Emissions

Daily: For construction projects exceeding the 137 lbs/day threshold requires Standard Mitigation Measures;

Quarterly – Tier 1: For construction projects exceeding the 2.5 tons/quarter threshold, require Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. Off-site mitigation may be required if feasible mitigation measures are not implemented, or if no mitigation measures are feasible for the project.

Quarterly – Tier 2: For construction projects exceeding the 6.3 tons/quarter threshold, require Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP) and off-site mitigation are required.

Diesel Particulate Matter (DPM) Emissions

Daily: For construction projects exceeding the 7 lbs/day threshold, require Standard Mitigation Measures;

Quarterly - Tier 1: For construction projects lasting more than one quarter, exceedance of the 0.13 tons/quarter threshold requires Standard Mitigation Measures, BACT for construction equipment; and,

Quarterly - Tier 2: For construction projects exceeding the 0.32 tons/quarter threshold, require Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

Fugitive Particulate Matter (PM10), Dust Emissions

Quarterly- Tier 1: For construction projects exceeding the 2.5 tons/quarter threshold requires Fugitive PM_{10} Mitigation Measures and may require the implementation of a CAMP.

Operational Impacts

Criteria Air Pollutants

The threshold criteria established by the SLOAPCD to determine the significance and appropriate mitigation level for long-term operational emissions from a project are presented in Table 5.

Table 5. SLOAPCD Thresholds of Significance for Project-Level Operational Impacts

Pollutant	Threshold [1]	
	Daily (lbs/day)	Annual (tons/year)
Ozone Precursors (ROG + NO_X)	25	25
Diesel Particulate Matter (DPM)[2]	1.25	None
Fugitive Particulate Matter (PM_{10}), Dust	25	25
CO	550	None

1. Daily and annual emissions thresholds are based on the California Health & Safety Code Division 26, Part 3, Chapter 10, Section 40918 and the ARB Carl Moyer Guidelines for DPM.

2. Applies to on-site emissions. DPM is seldom emitted from individual projects in quantities which lead to local or regional air quality attainment violations. Certain industrial and commercial projects may emit substantial quantities of on-site DPM through the use of stationary and mobile on-site diesel-fueled equipment.

Source: SLOAPCD 2012

Toxic Air Contaminants

If a project has the potential to emit toxic or hazardous air pollutants, or is located in close proximity to sensitive receptors, impacts may be considered significant due to increased cancer risk for the affected population, even at a very low level of emissions. For the evaluation of new proposed land use projects that generate toxic air contaminants (such as gasoline stations, distribution facilities or asphalt batch plants) the SLOAPCD has defined the excess cancer risk significance threshold at 10 in a million.

Localized CO Concentrations

Localized CO concentrations associated with the proposed project would be considered a less-than-significant impact if: (1) Traffic generated by the proposed project would not result in deterioration of signalized intersection level of service (LOS) to LOS E or F; or (2) the project would not contribute additional traffic to a signalized intersection that already operates at LOS of E or F (Caltrans 1996).

Odors

Screening of potential odor impacts is typically recommended for the following two situations:

- Projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate; and
- Residential or other sensitive receptor projects or other projects that may attract people locating near existing odor sources.

If the proposed project would locate receptors and known odor sources within one mile of each other, a full analysis of odor impacts is recommended. Known odor sources of primary concern, as identified by the SLOAPCD include landfills, transfer stations, asphalt batch plants, rendering plants, petroleum refineries, and painting/coating operations, as well as, composting, food processing, wastewater treatment, chemical manufacturing, and feedlot/dairy facilities.

Methodology

Short-term emissions associated with construction activities are largely dependent on the type of development proposed, area of ground disturbance, amount of buildings to be demolished, equipment required, and construction schedules. Emissions associated with the construction of the proposed project were calculated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2, computer program. Project construction is anticipated to occur over an approximately 33-month period beginning in

2022. According to project engineers, no material would be imported or exported. Approximately 2,000 sq.ft. of existing structures would be demolished. Additional construction information, such as equipment use, worker vehicle trips, and equipment load factors were not available and were based on default parameters contained in the model. Modeling assumptions and output files are included in Appendix C of this report.

Long-term operational increases in emissions of criteria air pollutants were calculated using the CalEEMod, version 2016.3.2. Emissions modeling included quantification of emissions associated with area sources, energy use, and mobile sources. Area sources included the use of architectural coatings and landscape maintenance activities. Energy use included emissions associated with natural gas and electricity use. Mobile-source emissions were based on vehicle trip-generation rates for proposed residential land uses derived from the *Transpiration Impact Study* prepared by Central Coast Transportation Consulting (CCTC 2020a). The proposed health club land use, parking spaces and other asphalt surfaces would not generate vehicle trips. Emission modeling files are provided in Appendix C.

Project Impacts and Mitigation Measures

Impact AQ-A. Conflict with or obstruct implementation of the applicable air quality plan.

SLOAPCD Clean Air Plan

As part of the CCAA, the SLOAPCD is required to develop a plan to achieve and maintain the state ozone standard by the earliest practicable date. The SLOAPCD's 2001 Clean Air Plan (CAP) addresses the attainment and maintenance of state and federal ambient air quality standards. The CAP was adopted by SLOAPCD's on March 26, 2002.

The SLOAPCD's CAP outlines the District's strategies to reduce ozone-precursor pollutants (i.e., ROG and NO_X) from a wide variety of sources. The SLOAPCD's CAP includes a stationary-source control program, which includes control measures for permitted stationary sources; as well as, transportation and land use management strategies to reduce motor vehicle emissions and use. The stationary-source control program is administered by SLOAPCD. Transportation and land use control measures are implemented at the local or regional level, by promoting and facilitating the use of alternative transportation options, increased pedestrian access and accessibility to community services and local destinations, reductions in vehicle miles traveled, and promotion of congestion management efforts. In addition, local jurisdictions also prepare population forecasts, which are used by SLOAPCD to forecast population-related emissions and air quality attainment, including those contained in the SLOAPCD's CAP. As a result, consistency with the SLOAPCD's CAP has been evaluated based on the proposed project's consistency with the land use management strategies and transportation control measures identified in the CAP. This analysis also provides an analysis of year 2050 population projections (medium growth scenario) contained in San Luis Obispo Council of Government's (SLOCOG) *2050 Regional Growth Forecast for San Luis Obispo County* (2017) and projected vehicle miles traveled (VMT), which are relied upon for regional air quality planning purposes. The population projects are included in SLOCOG's *2019 Regional Transportation Plan and Sustainable Communities Strategy* which identify the regional growth approach necessary to reach emission reduction targets set by the California Air Resources Board through SB 375 which is transportation legislation that supports the broader 2030 emission reduction targets required in SB 32.

Transportation and Land Use Control Measures

The SLOAPCD's CAP includes multiple transportation and land use control measures intended to reduce emissions through reductions in VMT and the promotion of alternative forms of transportation. The control measures applicable to the proposed project are summarized in Table 6. As noted the proposed project would be considered consistent with the SLOAPCD's regional air quality planning efforts.

Table 6. Project Consistency with SLOAPCD's CAP Transportation and Land Use Control Measures

Control Measures	Project Consistency
Land Use Planning Strategies	
L-1 Planning Compact Communities. • Cities and unincorporated communities should be developed at densities that reduce trips and travel distances and encourage the use of alternative forms of transportation. • Urban growth should occur within the urban reserve lines of cities and unincorporated communities. • Local planning agencies should encourage walking and transit use by planning neighborhoods and commercial centers at densities to allow for convenient access to and use of local and regional transit systems.	**Consistent**. The proposed project is located within the City's urban reserve lines and would result in the development of approximately 192 housing units, which is anticipated to promote overall increases in density that would help to reduce vehicle trip distances. Increases in housing units would help to offset projected imbalances between jobs and housing units, as noted in the 2019 *Regional Housing Needs Assessment* prepared by SLOCOG. Improvements in a jobs-to-housing imbalance would be anticipated to help support and promote local and regional improvements related to increased transportation mobility and potential reductions in VMT (SLOCOG 2019). The proposed project would be consistent with this measure.
L-2 Providing for Mixed Land Use. • The mixing of compatible commercial and residential land uses should be encouraged when it will reduce dependence on the automobile or improve the balance between jobs and housing without creating incompatible land use relationships.	
L-3 Balancing Jobs and Housing. • Within cities and unincorporated communities, the gap between the availability of jobs and housing should be narrowed and should not be allowed to expand.	
Transportation Control Measures	
T-2B Regional Public Transit Improvements. • The goal of this measure is to improve transit service and facilities that will promote increased public transit use instead of a private automobile.	**Consistent with Mitigation Incorporated**. Refer to Control Measure L-1, above.
T-3 Bicycling and Bikeway Enhancements. • The goal of this measure is to encourage a modal shift to bicycles through implementation of infrastructure improvements and administrative actions that provide inexpensive commute options and increased safety and convenience for commuters.	
T-6 Traffic-Flow Improvements. • This measure focuses on implementation of measures that would promote traffic calming and decreased vehicle congestion.	
T-8 Teleworking, Teleconferencing, and Telelearning. • The objective of this measure is to reduce the number of trips and miles traveled by employees and students by promoting teleworking, tele-conferencing and telelearning.	**Consistent**. The proposed project does not include commercial or industrial land uses that would result in increases in employment. In addition, refer to Control Measure L-1, above.

Projected Population, Employment & VMT Growth

The proposed project has been designed with a mix of single- and multi-family residential land uses. In total, the project is expected to result in an increase of approximately 440 residents. According to the U.S. Census, the City's current population is approximately 47,459. Under the medium growth scenario evaluated in the *2050 Regional Growth Forecast for San Luis Obispo County* (2017) the City's population is estimated to total approximately 48,601 residents in 2025 and 51,672 in 2050. In comparison to the existing estimated population, this equate to an increase of approximately 1,142 residents by year 2025 and 4,213 residents by year 2050. The proposed project would result in near-term increases in population of approximately 440 residents, which would not exceed projected year 2025 or year 2050 population projections.

SLOCOG prepared the *2019 Regional Housing Needs Assessment (RHNA)*, which is mandated by state law as part of the periodic process of updating local General Plan Housing Elements. The RHNA allows communities to anticipate and plan for future growth in ways that enhance quality of life, improve access to jobs, promote transportation mobility, and address fair share housing needs. One of the objectives of RHNAs is to improve the intraregional jobs-to-housing balance, with the objective of achieving a one-to-one

ratio. A one-to-one ratio is desirable for supporting and promoting transportation mobility and decreased VMT. Based on the projections identified in the RHNA, the County would need to add 11,535 housing units by the end of 2028 to meet overall jobs/housing goals (SLOCOG 2019).

According to the RHNA, the City of San Luis Obispo has about 61 percent more jobs than housing units, indicative of a "jobs-rich" community. The City's jobs to housing ratio is estimated to increase from a year 2015 ratio of 1.61 jobs/housing to a ratio of 1.82 jobs/housing by year 2030 (refer to Table 8). The City of San Luis Obispo is projected to increase the imbalance between jobs and housing units. The proposed project would add approximately 192 housing units, which would help to offset this projected increase in jobs-to-housing imbalance. Improvements in a jobs-to-housing imbalance would be anticipated to help support and promote local and regional improvements related to increased transportation mobility and potential reductions in VMT (SLOCOG 2019).

The proposed project would not result in increases in employment and projected increases in population associated with the proposed project would not conflict with population projections identified under the medium growth scenario evaluated in the *2050 Regional Growth Forecast for San Luis Obispo County* (2017). Furthermore, the proposed project would add approximately 192 housing units, which would contribute to potential reductions in VMT. For these reasons, this impact is considered ***less than significant***.

Particulate Matter Report – Implementation of SB 656 Requirements

In July 2005, SLOAPCD adopted the *Particulate Matter Report* (PM Report). The PM Report identifies various measures and strategies to reduce public exposure to PM emitted from a wide variety of sources, including emissions from permitted stationary sources and fugitive sources, such as construction activities. As discussed in Impact AQ-B, uncontrolled fugitive dust generated during construction may result in localized pollutant concentrations that may result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions of PM would be considered to have a ***potentially significant*** impact with regard to air quality planning efforts.

Mitigation Measures

Implement Mitigation Measures AQ-1 through AQ-3 (refer to Impact AQ-B).

Significance After Mitigation

Implementation of Mitigation Measures AQ-1, AQ-2, and AQ-3 would include measures to reduce construction-generated emissions. Together these measures would help to provide consistency with the measures identified in the SLOAPCD's CAP. With mitigation, this impact would be considered ***less than significant.***

Impact AQ-B. ***Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Construction Phase.***

Short-term Construction Emissions

Construction-generated emissions are of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. Construction of the proposed project would result in the temporary generation of emissions associated with site grading and excavation, paving, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces. Short-term construction emissions would result in increased emissions of ozone-precursor pollutants (i.e., ROG and NO_X) and emissions of PM. Emissions of ozone-precursors would result from the operation of on- and off-road motorized vehicles and equipment. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities and can result in increased concentrations of PM that can adversely affect nearby sensitive land uses.

Estimated maximum daily and quarterly emissions associated with construction of the proposed project are presented in Table 7 and Table 8, respectively, and summarized in Table 11. Construction generated emissions were compared to SLOAPCD's recommended significant thresholds (Daily, Quarterly Tier 1, and Quarterly Tier 2). As depicted in Table 7, maximum daily emissions associated with the construction of the proposed project would total approximately 36.4 lbs/day of ROG+NO_X and 1.25 lbs/day of exhaust PM_{10}. As depicted in Table 8, the maximum quarterly construction-generated emissions would total approximately 1.21 tons/quarter of ROG+NO_X, 0.16 tons/quarter of fugitive PM_{10}, and 0.03 tons/quarter of exhaust PM_{10}.

Table 7. Daily Construction Emissions Without Mitigation

Construction Activity	Construction Year	Maximum Daily Emissions (lbs/day)[1]	
		ROG+NO_X	Exhaust PM_{10}
Demolition	2022	29.7	1.25
Site Preparation	2022	36.4	1.6
Grading/Excavation	2022	22.9	0.9
Building Construction	2022	22.7	0.8
Architectural Coatings	2022	16.0	0.1
Building Construction	2023	20.5	0.7
Architectural Coatings	2023	15.9	0.1
Building Construction	2024	19.2	0.6
Architectural Coatings	2024	15.7	0.1
Paving	2023	13.1	0.5
SLOAPCD Daily Thresholds (pounds/day)		***137***	***7***
Maximum Daily Emissions-Year 2022		36.4	1.25
Exceed SLOAPCD Thresholds?		No	No
Maximum Daily Emissions-Year 2023		20.5	0.7
Exceed SLOAPCD Thresholds?		No	No
Maximum Daily Emissions-Year 2024		19.2	0.6
Exceed SLOAPCD Thresholds?		No	No

Maximum Daily Emissions: Assumes that facility construction, paving, and application of architectural coatings could potentially occur simultaneously on any given day. To be conservative, exhaust PM_{10} emissions were compared to SLOAPCD's DPM threshold. Totals may not sum due to rounding. Refer to Appendix C for modeling assumptions and results.
1 Maximum daily emissions include on-site and off-site emissions.

Maximum daily and quarterly construction emissions of ROG+NO_X would not exceed SLOAPCD's daily, quarterly Tier 1, or quarterly Tier 2 significance thresholds. Emissions would be largely a result of mobile-source emissions associated with construction vehicle and equipment operations anticipated to occur during the building construction phase. Estimated emissions of fugitive PM and DPM would not exceed SLOAPCD's significance thresholds. However, if uncontrolled, fugitive dust generated during construction may result in localized pollutant concentrations that could exceed ambient air quality standards and result in increased nuisance concerns to nearby land uses. For these reasons, construction-generated emissions would be considered to have a ***potentially significant*** impact.

Table 8. Quarterly Construction Emissions Without Mitigation

Quarter	Maximum Quarterly Emissions (tons)[1]			
	ROG+NO_X	PM_{10}[2]		
		Fugitive	Exhaust	Total
Year 2022 - Quarter 1	0.08	0.03	<0.01	0.03
Year 2022 - Quarter 2	0.89	0.16	0.03	0.20
Year 2022 - Quarter 3	0.73	0.06	0.03	0.09
Year 2022 - Quarter 4	1.26	0.07	0.03	0.10
Year 2023 - Quarter 1	1.21	0.07	0.03	0.10
Year 2023 - Quarter 2	1.18	0.07	0.03	0.10
Year 2023 - Quarter 3	1.18	0.07	0.03	0.10
Year 2023 - Quarter 4	1.18	0.07	0.03	0.10
Year 2024 - Quarter 1	0.94	0.06	0.02	0.08
SLOAPCD Quarterly Tier 1/Tier 2 Thresholds (tons/quarter)	**2.5/6.3**	**2.5/None**	**0.13/0.32**	**None**
Maximum Quarterly Emissions:	1.26	0.16	0.03	0.2
Exceeds SLOAPCD Tier 1/Tier 2 Thresholds?	No/No	No/NA	No/No	NA

Maximum Quarterly Emissions: Assumes that facility construction, paving, and application of architectural coatings could potentially occur simultaneously on any given day. To be conservative, total exhaust PM_{10} emissions were compared to SLOAPCD's DPM threshold. Totals may not sum due to rounding. Refer to Appendix C for modeling assumptions and results. NA=Not Applicable

1. Maximum daily emissions include on-site and off-site emissions..

Table 9. Summary of Construction Emissions Without Mitigation

Criteria	Project Emissions	SLOAPCD Significance Threshold		Exceeds Significance Threshold?	
Maximum Daily Emissions of ROG+NO_X	36.4 lbs/day	137 lbs/day		No	
Maximum Daily Emissions of DPM	1.25 lbs/day	7 lbs/day		No	
		Tier 1	**Tier 2**	**Tier 1**	**Tier 2**
Maximum Quarterly Emissions of ROG+NO_X	1.26 tons/qtr	2.5 tons/qtr	6.3 tons/qtr	No	No
Maximum Quarterly Emissions of DPM	0.03 tons/qtr	0.13 tons/qtr	0.32 tons/qtr	No	No
Maximum Quarterly Emissions of Fugitive PM	0.16 tons/qtr	2.5 tons/qtr	None	No	No

Refer to Appendix C for modeling assumptions and results.

Mitigation Measures

AQ-1: The following SLOAPCD-recommended *Standard Mitigation Measures* shall be implemented to reduce construction generated NO_X, ROG, and DPM.

a. Maintain all construction equipment in proper tune according to manufacturer's specifications;
b. Fuel all off-road and portable diesel-powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
c. Diesel-fueled construction equipment shall meet, at a minimum, ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
d. Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
e. Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance;
f. All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit;
g. Diesel idling within 1,000 feet of sensitive receptors is not permitted;

h. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
i. Electrify equipment when feasible;
j. Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,
k. Use alternative-fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

AQ-2: The following SLOAPCD-recommended mitigation measures shall be implemented to reduce construction generated fugitive dust. These measures shall be shown on grading and building plans.

a. Reduce the amount of disturbed area where possible.
b. Use water trucks, SLOAPCD-approved dust suppressants (see Section 4.3 in the CEQA Air Quality Handbook), or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the District's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control. For a list of suppressants, see Section 4.3 of the CEQA Air Quality Handbook.
c. All dirt stockpile areas should be sprayed daily as needed.
d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
e. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.
f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD.
g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between the top of load and top of trailer) in accordance with CVC Section 23114.
j. Install wheel washers at the construction site entrance/exit, wash off the tires or tracks of all trucks and equipment leaving the site, or implement other SLOAPCD-approved track-out prevention devices sufficient to minimize the track-out of soil onto paved roadways.
k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
l. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.
m. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent the transport of dust off-site. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.
n. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant). For more information, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.

o. Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter.
p. To the extent locally available, use prefinished building materials or materials that do not require the application of architectural coatings.

AQ-3: The following measures shall be implemented to reduce construction emissions from on and off-road construction equipment (NOx, ROG, and DPM) These measures shall be shown on grading and building plans:

a. Idling Restrictions Near Sensitive Receptors for Both On and off-Road Equipment
   1) Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
   2) Diesel idling within 1,000 feet of sensitive receptors is not permitted;
   3) Use of alternative fueled equipment is recommended whenever possible; and,
   4) Signs that specify the no-idling requirements must be posted and enforced at the construction site.

b. Idling Restrictions for On-road Vehicles

   Section 2485 of Title 13, the California Code of Regulations limits diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:
   1) Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,
   2) Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.
   3) Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5-minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following web site: www.arb.ca.gov/msprog/truck-idling/2485.pdf.

c. Idling Restrictions for off-Road Equipment

   Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use Off-Road Diesel regulation: www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.

   1) Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit.

Significance After Mitigation

Implementation of Mitigation Measures AQ-1, AQ-2, AQ-3 would include measures to reduce construction-generated emissions of fugitive dust, mobile-source emissions associated with construction vehicles and equipment, and evaporative emissions from architectural coasting (e.g. low VOC-emission paint). Together these measures would assist with the compliance of SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and minimize potential nuisance impacts to nearby receptors. With mitigation, this impact would be considered ***less than significant.***

Long-term Operational Emissions

Long-term operational emissions associated with the proposed project would be predominantly associated with mobile sources. To a lesser extent, emissions associated with area sources, such as landscape maintenance activities, as well as, use of electricity and natural gas would also contribute to increased operational emissions.

Unmitigated operational emissions associated with the proposed project are summarized in Table 10. As depicted, maximum daily operational emissions would total approximately 18.1 lbs/day of ROG+NO_x, 42.9 lbs/day of CO, and 9.3 lbs/day of fugitive PM_{10}. Daily emissions of ROG+NO_x, CO, and fugitive PM_{10} would not exceed SLOAPCD's corresponding significance thresholds. It is also important to note that the proposed

project is not anticipated to include the installation of stationary or mobile sources that would result in daily emissions in excess of SLOAPCD's DPM threshold. Annual emissions would total approximately 3.1 tons/year of ROG+NO_x and approximately 1.5 tons/year of fugitive PM_{10}. Estimated annual operational emissions would not exceed SLOAPCD's recommended significance thresholds. The proposed project would not result in increased emissions in excess of applicable significance thresholds for pollutants for which the region is designated non-attainment. As a result, this impact would be considered ***less than significant***.

Table 10. Operational Emissions Without Mitigation

Operational Period/Source	Emissions[1]						
	ROG	NO_X	ROG+NO_X	CO	PM_{10}		
					Fugitive	Exhaust[2]	Total
Daily Emissions (lbs/day)							
Area Source	5.3	0.2	5.5	15.8	0	<0.1	<0.1
Energy Use	0.1	1.0	1.1	0.4	0	0.1	0.1
Mobile[3]	2.3	9.2	11.5	26.7	9.3	0.1	9.4
Total Project Emissions	7.7	10.4	18.1	42.9	9.3	0.2	9.5
SLOAPCD Significance Thresholds	--	--	25	550	25	1.25[4]	--
Exceeds SLOAPCD Thresholds?	--	--	No	No	No	No[3]	--
Annual Emissions (tons/year)							
Total Project Emissions	1.4	1.8	3.1	7.1	1.5	<0.1	1.6
SLOAPCD Significance Thresholds	--	--	25	--	25	--	--
Exceeds SLOAPCD Thresholds?	--	--	No	--	No	--	--

1. *Daily emissions are based on the highest emissions for summer or winter operational conditions for buildout year 2024 conditions. Totals may not sum due to rounding. Refer to Appendix C for modeling output files and assumptions.*
2. *Includes PM exhaust emissions for diesel- and gasoline-fueled vehicles. Based on the CalEEMod default fleet mix, diesel-fueled vehicles would represent less than 10 percent of the overall vehicle fleet mix/VMT and total exhaust PM_{10} emissions for the project. Estimated total diesel-exhaust PM_{10}, including on-site and off-site vehicular emissions, would be less than approximately 0.2 lbs/day. The proposed project is not anticipated to include the installation of on-site stationary or mobile sources of DPM emissions that would be anticipated to exceed the SLOAPCD's on-site significance threshold of 1.25 lbs/day.*
3. *Includes EMFAC off-model adjustment factors to account for the SAFE Vehicle Rule, Part One.*
4. *The SLOAPCD-recommended DPM significance threshold applies to on-site emission sources.*

Impact AQ-D. Expose sensitive receptors to substantial pollutant concentrations.

The proposed project's potential contribution to localized air pollutants is discussed, as follows:

Naturally-Occurring Asbestos

Naturally-occurring asbestos (NOA) has been identified as a toxic air contaminant by the ARB. In accordance with ARB Air Toxics Control Measure (ATCM), prior to any grading activities, a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request form, along with a copy of the geologic report, must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM.

Based on a review of the SLOAPCD's map depicting potential areas of NOA, the project site is located in or near an area that has been identified as having a potential for NOA (refer to Appendix B). There is a potential for NOA to potentially be discovered during the grading process. As a result, this impact would be considered ***potentially significant***.

Asbestos-Containing Materials

Demolition activities can have potential negative air quality impacts, including issues surrounding the proper handling, demolition, and disposal of asbestos-containing material (ACM). ACM could be encountered

during the demolition of existing buildings, particularly older structures constructed prior to 1970. Asbestos can also be found in various building products, including (but not limited to) utility pipes/pipelines (transit pipes or insulation on pipes). If a project will involve the disturbance or potential disturbance of ACM, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M-Asbestos NESHAP). These requirements include but are not limited to: 1) notification, within at least 10 business days of activities commencing, to the APCD, 2) an asbestos survey conducted by a Certified Asbestos Consultant, and, 3) applicable removal and disposal requirements of identified ACM.

The proposed project would include the demolition of approximately 2,000 sq.ft. of existing on-site structures. The demolition of existing structures may result in disturbance of ACM. This impact is considered ***potentially significant***.

Lead-Coated Materials

Demolition of structures coated with lead-based paint can have potential negative air quality impacts and may adversely affect the health of nearby individuals. Improper demolition can result in the release of lead-containing particles from the site. Sandblasting or removal of paint by heating with a heat gun can result in significant emissions of lead. In such instances, proper abatement of lead before demolition of these structures must be performed in order to prevent the release of lead from the site. Depending on the removal method, a SLOAPCD permit may be required. The demolition of existing structures may result in the disturbance of lead-containing materials. This impact is considered ***potentially significant***.

Localized PM Concentrations

Fugitive dust emissions would be primarily associated with building demolition, site preparation, grading, and vehicle travel on unpaved and paved surfaces. On-site off-road equipment and trucks would also result in short-term emissions of diesel-exhaust PM, which could contribute to elevated localized concentration at nearby receptors. Uncontrolled emissions of fugitive dust may also contribute to potential increases in nuisance impacts to nearby receptors. For these reasons, localized uncontrolled concentrations of construction-generated PM would be considered to have a ***potentially significant*** impact.

Localized CO Concentrations

Localized concentrations of CO are of primary concern in areas located near congested roadway intersections. Of particular concern are signalized intersections that are projected to operate at unacceptable levels of service (LOS) E or F (Caltrans 1996). With implementation of proposed traffic mitigation, signalized intersections primarily affected by the proposed project would operate at LOS D, or better (CCTC 2020a). As a result, implementation of the proposed project is not anticipated to contribute to localized CO concentrations that would exceed applicable ambient air quality standards. This impact is considered ***less than significant***.

Mitigation Measures

Implement Mitigation Measure AQ-1 through AQ-3 and the following:

AQ-4: The following mitigation measures shall be implemented to reduce the disturbance of asbestos and lead. Strategies include but are not limited to the following:

a. Demolition of on-site structures shall comply with the National Emission Standards for Hazardous Air Emissions requirements (NESHAP, 40 CFR, Part 61, Subpart M) for the demolition of existing structures. The SLOAPCD is delegated authority by the Environmental Protection Agency (EPA) to implement the Federal Asbestos NESHAP. Prior to demolition of on-site structures, the SLOAPCD shall be notified, per NESHAP requirements. SLOAPCD notification form and reporting requirements are included in Appendix A. Additional information may be obtained at website URL: http://slocleanair.org/ business/asbestos.php.

b. If during the demolition of existing structures, paint is separated from the construction materials (e.g. chemically or physically), the paint waste will be evaluated independently from the building material by a qualified hazardous materials inspector to determine its proper management. All hazardous materials shall be handled and disposed of in accordance with local, state and federal regulations.

According to the Department of Toxic Substances Control (DTSC), if the paint is not removed from the building material during demolition (and is not chipping or peeling), the material can be disposed of as construction debris (a non-hazardous waste). The landfill operator will be contacted prior to disposal of building material debris to determine any specific requirements the landfill may have regarding the disposal of lead-based paint materials. The disposal of demolition debris shall comply with any such requirements. Contact the SLOAPCD Enforcement Division at (805) 781-5912 for more information. Approval of a lead work plan and permit may be required. Lead work plans, if required, will need to be submitted to SLOAPCD ten days prior to the start of demolition.

c. Prior to any grading activities, a geologic evaluation shall be conducted to determine if naturally occurring asbestos (NOA) is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. These requirements may include but are not limited to:

    1) Development of an Asbestos Dust Mitigation Plan which must be approved by the SLOAPCD before operations begin, and,
    2) Development and approval of an Asbestos Health and Safety Program (required for some projects).

Significance After Mitigation

With the implementation of Mitigation Measure AQ-1 through AQ-3 construction-related emissions, including fugitive dust, would be substantially reduced. Mitigation Measure AQ-4 would ensure compliance with applicable regulatory requirements pertaining to exposure to asbestos and lead-based paints. With mitigation, this impact would be considered ***less than significant.***

Impact AQ-D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

The proposed project would not result in the installation of any equipment or processes that would be considered major odor-emission sources. In addition, no known odor sources are within one mile of the project site. However, construction of the proposed project would involve the use of a variety of gasoline or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel-exhaust, may be considered objectionable by some people. In addition, pavement coatings and architectural coatings used during project construction would also emit temporary odors. However, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly with increasing distance from the source. As a result, short-term construction activities would not expose a substantial number of people to frequent odorous emissions. For these reasons, potential exposure of sensitive receptors to odorous emissions would be considered ***less than significant***.

GREENHOUSE GASES AND CLIMATE CHANGE

Existing Setting

To fully understand global climate change, it is important to recognize the naturally occurring "greenhouse effect" and to define the greenhouse gases (GHGs) that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Primary GHGs attributed to global climate change, are discussed, as follows:

- **Carbon Dioxide**. Carbon dioxide (CO_2) is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere (U.S. EPA 2018).

- **Methane**. Methane (CH_4) is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. Methane's atmospheric lifetime is about 12 years (U.S. EPA 2018).

- **Nitrous Oxide**. Nitrous oxide (N_2O) is a clear, colorless gas with a slightly sweet odor. N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 114 years (U.S. EPA 2018).

- **Hydrofluorocarbons.** Hydrofluorocarbons (HFCs) are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 270 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years) (U.S. EPA 2018).

- **Perfluorocarbons.** Perfluorocarbons (PFCs) are colorless, highly dense, chemically inert, and non-toxic. There are seven PFC gases: perfluoromethane (CF_4), perfluoroethane (C_2F_6), perfluoropropane (C_3F_8), perfluorobutane (C_4F_{10}), perfluorocyclobutane (C_4F_8), perfluoropentane (C_5F_{12}), and perfluorohexane (C_6F1_4). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF_4 and C_2F_6 as byproducts. The estimated atmospheric lifetimes for PFCs ranges from 2,600 to 50,000 years (U.S. EPA 2018).

- **Nitrogen Trifluoride**. Nitrogen trifluoride (NF_3) is an inorganic, colorless, odorless, toxic, nonflammable gas used as an etchant in microelectronics. Nitrogen trifluoride is predominantly employed in the cleaning of the plasma-enhanced chemical vapor deposition chambers in the production of liquid crystal displays and silicon-based thin-film solar cells. It has a global warming potential of 16,100 carbon dioxide equivalents (CO_2e). While NF_3 may have a lower global warming potential than other chemical etchants, it is still a potent GHG. In 2009, NF_3 was listed by California as a high global warming potential GHG to be listed and regulated under Assembly Bill (AB) 32 (Section 38505 Health and Safety Code).

- **Sulfur Hexafluoride**. Sulfur hexafluoride (SF_6) is an inorganic compound that is colorless, odorless, non-toxic, and generally non-flammable. SF_6 is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all SF_6 produced worldwide. Leaks of SF_6 occur from aging equipment and during equipment maintenance and servicing. SF_6 has an atmospheric life of 3,200 years (U.S. EPA 2018).

- **Black Carbon**. Black carbon is the strongest light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Black carbon contributes to climate change both directly by absorbing sunlight and indirectly by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is considered a short-lived species, which can vary spatially and, consequently, it is very difficult to quantify associated global-warming potentials. The main sources of black carbon in California are wildfires, off-road vehicles (locomotives, marine vessels, tractors, excavators, dozers, etc.), on-road vehicles (cars, trucks, and buses), fireplaces, agricultural waste burning, and prescribed burning (planned burns of forest or wildlands) (CCAC 2018, U.S. EPA 2018).

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Often, estimates of GHG emissions are presented in CO_2e, which weight each gas by its global warming potential (GWP). Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. Table 11 provides a summary of the GWP for GHG emissions of typical concern with regard to community development projects, based on a 100-year time horizon. As indicated, Methane traps over 25 times more heat per molecule than CO_2, and N_2O absorbs roughly 298 times more heat per molecule than CO_2. Additional GHG with high GWP includes Nitrogen trifluoride, Sulfur hexafluoride, Perfluorocarbons, and black carbon.

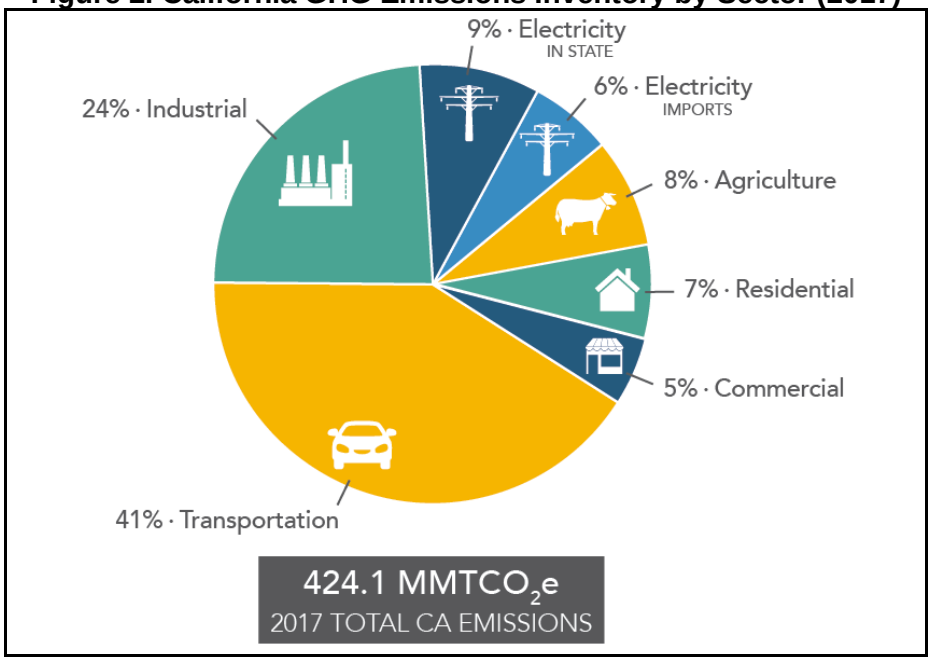
Table 11. Global Warming Potential for Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100-year)
Carbon Dioxide (CO_2)	1
Methane (CH_4)	25
Nitrous Dioxide (N_2O)	298
Based on IPCC GWP values for 100-year time horizon. *Source: IPCC 2007*	

Statewide GHG Emissions

In 2017, GHG emissions within California totaled 424.1 million metric tons (MMT) of CO_2e. GHG emissions, by sector, are summarized in Figure 2. Within California, the transportation sector is the largest contributor, accounting for approximately 41 percent of the total state-wide GHG emissions. Emissions associated with industrial uses are the second-largest contributor, totaling roughly 24 percent. Electricity generation totaled roughly 15 percent. Other major emission sources included commercial uses, residential uses, agriculture, recycling and waste (ARB 2019).

Figure 2. California GHG Emissions Inventory by Sector (2017)



Source: ARB 2019a

City of San Luis Obispo GHG Emissions Inventories

The City has completed a community-wide inventory of GHG emissions for years 2005 and 2016, which are summarized in Table 12. As shown, a majority of the City's emissions are associated with mobile sources. Remaining GHG emissions are predominantly associated with energy use and solid waste generation. In comparison to year 2005 community-wide emissions, year 2016 emissions decreased by a total of approximately 12 percent (City of San Luis Obispo 2020).

Table 12. City of San Luis Obispo GHG Emissions Inventories

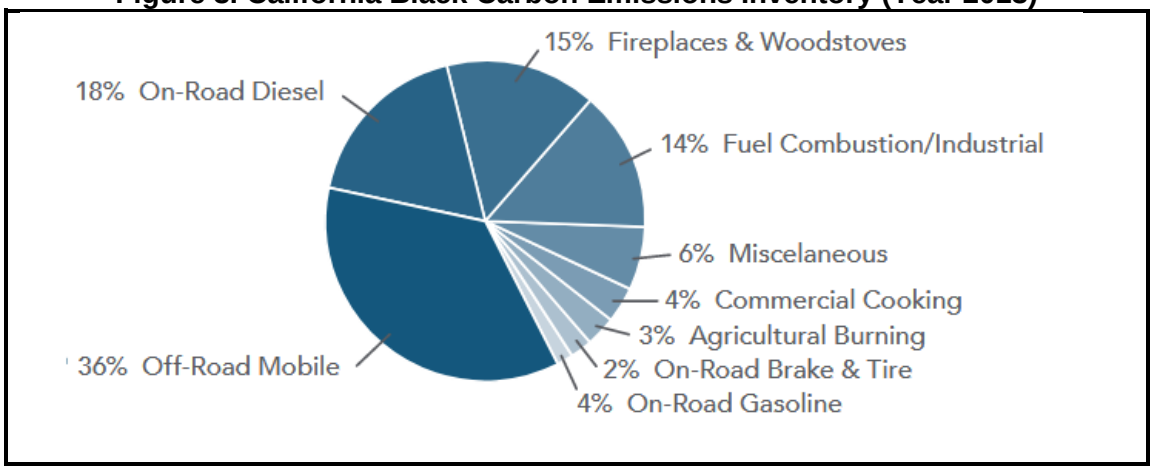
Sector	Year 2005	Year 2016	Percent Change from 2005 to 2016
Transportation	225,390	212,980	-6%
Non-residential Energy	58,050	44,270	-24%
Residential Energy	55,450	39,410	-29%
Solid Waste	47,740	42,630	-11%
Total	386,630	339,290	-12%
Source: City of San Luis Obispo 2020			

Short-Lived Climate Pollutants

Short-lived climate pollutants (SLCPs), such as black carbon, fluorinated gases, and methane also have a dramatic effect on climate change. Though short-lived, these pollutants create a warming influence on the climate that is many times more potent than that of carbon dioxide.

As part of the ARB's efforts to address SLCPs, the ARB has developed a statewide emission inventory for black carbon. The black carbon inventory will help support the implementation of the SLCP Strategy, but it is not part of the State's GHG Inventory that tracks progress towards the State's climate targets. The most recent inventory for year 2013 conditions is depicted in Figure 3. As depicted, off-road mobile sources account for a majority of black carbon emissions totaling roughly 36 percent of the inventory. Other major anthropogenic sources of black carbon include on-road transportation, residential wood burning, fuel combustion, and industrial processes (ARB 2020).

Figure 3. California Black Carbon Emissions Inventory (Year 2013)



Source: ARB 2020

Effects of Global Climate Change

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea-level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, increased air pollution episodes, and the consequence of these effects on the economy.

Within California, climate changes would likely alter the ecological characteristics of many ecosystems throughout the state. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of the precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snowpack is a principal supply of water for the state, providing roughly 50 percent of the state's annual runoff. If this trend continues, some areas of the state may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. Earlier snowmelt would also impact the State's energy resources. Currently, approximately 20 percent of California's electricity comes from hydropower. Early exhaustion of the Sierra snowpack, may force electricity producers to switch to more costly or non-renewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. As a result, resultant changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry.

Regulatory Framework

Federal

EXECUTIVE ORDER 13514

Executive Order 13514 is focused on reducing GHGs internally in federal agency missions, programs, and operations. In addition, the executive order directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

On April 2, 2007, in Massachusetts v. U.S. EPA, 549 U.S. 497 (2007), the Supreme Court found that GHGs are air pollutants covered by the FCAA and that the U.S. EPA has the authority to regulate GHG. The Court held that the U.S. EPA Administrator must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator found that the current and projected concentrations of the six key well-mixed GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. EPA's Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles, which was published on September 15, 2009. On May 7, 2010, the final Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards was published in the Federal Register.

The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations. These steps were outlined by President Obama in a Presidential Memorandum on May 21, 2010.

The final combined U.S. EPA and NHTSA standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile (the equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements). Together, these standards will cut GHG emissions by an estimated 960 MMT and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). On August 28, 2012, U.S. EPA and NHTSA issued their joint rule to extend this national program of coordinated GHG and fuel economy standards to model years 2017 through 2025 passenger vehicles.

State

EXECUTIVE ORDER NO. S-3-05

Executive Order S-3-05 (State of California) proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and state legislature describing (1) progress made toward reaching the emission targets, (2) impacts of global warming on California's resources, and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the secretary of CalEPA created a Climate Action Team made up of members from various state agencies and commissions. The Climate Action Team released its first report in March 2006 and continues to release periodic reports on progress. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government, and community actions, as well as through state incentive and regulatory programs.

ASSEMBLY BILL 32 - CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006

AB 32 (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. The gases that are regulated by AB 32 include CO_2, CH_4, N_2O, HFCs, PFCs, NF_3, and SF_6. The reduction to 1990 levels will be accomplished through an enforceable statewide cap on GHG emissions that

will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

CLIMATE CHANGE SCOPING PLAN

In October 2008, ARB published its *Climate Change Proposed Scoping Plan*, which is the State's plan to achieve GHG reductions in California required by AB 32. This initial Scoping Plan contained the main strategies to be implemented in order to achieve the target emission levels identified in AB 32. The Scoping Plan included ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the Low Carbon Fuel Standard program, implementation of energy efficiency measures in buildings and appliances, and the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

The Scoping Plan states that land use planning and urban growth decisions will play important roles in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. With regard to land use planning, the Scoping Plan expects approximately 5.0 MMT CO_2e will be achieved associated with the implementation of Senate Bill 375, which is discussed further below.

The initial Scoping Plan was first approved by ARB on December 11, 2008, and is updated every five years. The first update of the Scoping Plan was approved by the ARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals., The most recent update released by ARB is the *2017 Climate Change Scoping Plan*, which was released on November 2017. The *2017 Climate Change Scoping Plan* incorporates strategies for achieving the 2030 GHG-reduction target established in SB 32 and EO B-30-15. Most notably, the *2017 Climate Change Scoping Plan* encourages zero net increases in GHG emissions. However, the *2017 Climate Change Scoping Plan* recognizes that achieving net zero increases in GHG emissions may not be feasible or appropriate for all projects and that the inability of a project to mitigate its GHG emissions to zero would not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.

SENATE BILL 1078 AND GOVERNOR'S ORDER S-14-08

Senate Bill 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20 percent of their supply from renewable sources by 2017. This Senate Bill will affect statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed Executive Order S-14-08, which set the Renewables Portfolio Standard target to 33 percent by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. Executive Order S-14-08 was later superseded by Executive Order S-21-09 on September 15, 2009. Executive Order S-21-09 directed the ARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. Statute SB X1-2 superseded this Executive Order in 2011, which obligated all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33 percent of their energy from renewable electrical generation facilities by 2020.

ARB is required by current law, AB 32 of 2006, to regulate sources of GHGs to meet a state goal of reducing GHG emissions to 1990 levels by 2020 and an 80 percent reduction of 1990 levels by 2050. The California Energy Commission and California Public Utilities Commission serve in advisory roles to help ARB develop the regulations to administer the 33 percent by 2020 requirement. ARB is also authorized to increase the target and accelerate and expand the time frame.

MANDATORY REPORTING OF GHG EMISSIONS

The California Global Warming Solutions Act (AB 32, 2006) requires the reporting of GHGs by major sources to the ARB. Major sources required to report GHG emissions include industrial facilities, suppliers of transportation fuels, natural gas, natural gas liquids, liquefied petroleum gas, and carbon dioxide, operators of petroleum and natural gas systems, and electricity retail providers and marketers.

CAP-AND-TRADE REGULATION

The cap-and-trade regulation is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013, and apply to large electric power plants and large industrial plants. In 2015, fuel distributors, including distributors of heating and transportation fuels, also became subject to the cap-and-trade rules. At that stage, the program will encompass around 360 businesses throughout California and nearly 85 percent of the state's total GHG emissions.

Under the cap-and-trade regulation, companies must hold enough emission allowances to cover their emissions and are free to buy and sell allowances on the open market. California held its first auction of GHG allowances on November 14, 2012. California's GHG cap-and-trade system is projected to reduce GHG emissions to 1990 levels by the year 2020 and would achieve an approximate 80 percent reduction from 1990 levels by 2050.

SENATE BILL 32

SB 32 was signed by Governor Brown on September 8, 2016. SB 32 effectively extends California's GHG emission-reduction goals from year 2020 to year 2030. This new emission-reduction target of 40 percent below 1990 levels by 2030 is intended to promote further GHG-reductions in support of the State's ultimate goal of reducing GHG emissions by 80 percent below 1990 levels by 2050. SB 32 also directs the ARB to update the Climate Change Scoping Plan to address this interim 2030 emission-reduction target.

SENATE BILL 97

Senate Bill 97 (SB 97) was enacted in 2007. SB 97 required OPR to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of GHG emissions. Those CEQA Guidelines amendments clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects and must reach a conclusion regarding the significance of those emissions.
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions.
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change.
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria.
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply and ways to reduce energy demand, including through the use of efficient transportation alternatives.

As part of the administrative rulemaking process, the California Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010.

SENATE BILL 100

Senate Bill 100 (SB 100) was signed by Governor Jerry Brown on September 10, 2018. SB 100 sets a goal of phasing out all fossil fuels from the state's electricity sector by 2045. SB 100 increases to 60 percent, from 50 percent, how much of California's electricity portfolio must come from renewables by 2030. It establishes a further goal to have an electric grid that is entirely powered by clean energy by 2045, which could include other carbon-free sources, like nuclear power, that are not renewable.

SENATE BILL 375

SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will address land-use allocation in that MPOs regional transportation plan. ARB, in consultation with MPOs, establishes regional reduction targets for GHGs emitted by passenger cars and light trucks for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, funding for transportation projects may be withheld. In 2018, ARB adopted updated SB 375 targets.

CALIFORNIA BUILDING CODE

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Code is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

GREEN BUILDING STANDARDS

In essence, green buildings standards are indistinguishable from any other building standards. Both standards are contained in the California Building Code and regulate the construction of new buildings and improvements. The only practical distinction between the two is that whereas the focus of traditional building standards has been protecting public health and safety, the focus of green building standards is to improve environmental performance.

AB 32, which mandates the reduction of GHG emissions in California to 1990 levels by 2020, increased the urgency around the adoption of green building standards. In its scoping plan for the implementation of AB 32, ARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25 percent of all such emissions. In recommending a green building strategy as one element of the scoping plan, ARB estimated that green building standards would reduce GHG emissions by approximately 26 MMT of CO_2e by 2020.

The green buildings standards were most recently updated on May 2018. Referred to as the *2019 Building Energy Efficiency Standards*, this most recent update focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The ventilation measures improve indoor air quality, protecting homeowners from air pollution originating from outdoor and indoor sources. Under the newly adopted standards, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades. The recently updated *2019 Building Energy Efficiency Standards* also require new homes built after January 1, 2020 to be equipped with solar photovoltaic (PV) systems. The solar PV systems are to be sized based on the buildings annual electricity demand, the building square footage, and the climate zone within which the home is located. However, under the *2019 Building Energy Efficiency Standards,* homes may still rely on other energy sources, such as natural gas. Compliance with the *2019 Building Energy Efficiency Standards,* including the solar PV system mandate, residential dwellings will use approximately 50 to 53 percent less energy than those under the 2016 standards. Actual

reduction will vary depending on various factors (e.g., building orientation, sun exposure). Non-residential buildings will use about 30 percent less energy due mainly to lighting upgrades (CEC 2019).

SHORT-LIVED CLIMATE POLLUTANT REDUCTION STRATEGY

In March 2017, the ARB adopted the *Short-Lived Climate Pollutant Reduction Strategy* (*SLCP Strategy*) establishing a path to decrease GHG emissions and displace fossil-based natural gas use. Strategies include avoiding landfill methane emissions by reducing the disposal of organics through edible food recovery, composting, in-vessel digestion, and other processes; and recovering methane from wastewater treatment facilities, and manure methane at dairies, and using the methane as a renewable source of natural gas to fuel vehicles or generate electricity. The *SLCP Strategy* also identifies steps to reduce natural gas leaks from oil and gas wells, pipelines, valves, and pumps to improve safety, avoid energy losses, and reduce methane emissions associated with natural gas use. Lastly, the *SLCP Strategy* also identifies measures that can reduce hydrofluorocarbon (HFC) emissions at national and international levels, in addition to State-level action that includes an incentive program to encourage the use of low-GWP refrigerants, and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment (ARB 2017).

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT

The SLOAPCD is a local public agency with the primary mission of realizing and preserving clean air for all county residents and businesses. Responsibilities of the SLOAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by federal and state regulatory requirements.

CITY OF SAN LUIS OBISPO CLIMATE ACTION PLAN

The City of San Luis Obispo Climate Action Plan (CAP) is a long-range plan to reduce GHG emissions from City government operations and community activities. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development. The CAP was prepared with the goal of achieving carbon neutrality by 2035. The CAP includes measures to reduce community-wide GHG emissions by 45 percent below 1990 levels by 2030 and 66 percent below 1990 levels by 2035, which is consistent with California's goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 (City of San Luis Obispo 2020).

Impact Analysis

In accordance with Appendix G of the *State CEQA Guidelines,* increased GHG emissions associated with the implementation of the proposed project would be considered significant if it would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The SLOAPCD has adopted recommended GHG significance thresholds. These thresholds are based on AB 32 GHG emission reduction goals, which take into consideration the emission reduction strategies outlined in ARB's Scoping Plan. The GHG significance thresholds include one qualitative threshold and two quantitative thresholds options for the evaluation of operational GHG emissions. The qualitative threshold option is based on a consistency analysis in comparison to a Qualified Greenhouse Gas Reduction Strategy, or equitably similar adopted policies, ordinances, and programs. If a project complies with a Qualified Greenhouse Gas Reduction Strategy that is specifically applicable to the project, then the project would be considered to have a less-than-significant impact.

The two quantitative threshold options identified by the SLOAPCD include: 1) a bright-line threshold of 1,150 $MTCO_2e$/year; and 2) an efficiency threshold of 4.9 $MTCO_2e$/service population (SP; residents+employees) /year ($MTCO_2e$/SP/yr). An additional GHG significance threshold of 10,000 $MTCO_2e$/year is proposed for industrial stationary sources. The applicable GHG significance threshold to be used would depend on the type of project being proposed. Project-level analyses may rely on the bright-line threshold or, for population-based projects or plans, the efficiency metric threshold. Projects with GHG emissions that do not exceed the selected threshold would be considered to have a less-than-significant impact and would not conflict with applicable GHG-reduction plans, policies, or regulations. SLOAPCD's GHG emission thresholds are summarized in Table 13.

Table 13. SLOAPCD Greenhouse Gas Thresholds of Significance

Project	Threshold
Projects other than Stationary Sources	1. Compliance with Qualified GHG Reduction Strategy (i.e., Climate Action Plan); or 2. Bright Line Threshold: 1,150 MT CO_2e/year; or 3. Efficiency Threshold: 4.9 MT CO_2e/SP/year (residents+employees)
Stationary Sources (Industrial)	10,000 MT CO_2e/year
Construction	Amortized over the project life and added to operation GHG emissions
Source: SLOAPCD 2012	

Threshold of Significance

As noted above, the SLOAPCD recommends three approaches that can be applied for the evaluation of project-level GHG impacts. For large development projects, use of the SLOAPCD-recommended efficiency threshold or compliance with a qualified GHG-reduction strategy/CAP, such as the *City of San Luis Obispo Climate Action Plan*, is typically recommended. The City of *San Luis Obispo* CAP includes a "Consistency Worksheet", which identifies various measures designed to reduce project-related GHG emissions. The CAP Consistency Worksheet can be used to demonstrate project-level compliance with the CAP.

The buildout year for this project would be post year 2020. Because the SLOAPCD's-recommended GHG-efficiency threshold was based on AB 32 year 2020 GHG-reduction target, the GHG-efficiency threshold was adjusted to account for the more stringent year 2030 GHG-reduction target mandated by SB 32. The GHG-efficiency threshold was calculated by dividing the GHG emissions inventory goal (allowable emissions), by the estimated service population (SP). The efficiency threshold was calculated based on ARB's GHG emissions inventory identified in the *2017 Scoping Plan Update*. Emissions sectors that do not apply to the proposed project (i.e., industrial, agriculture) were excluded from the calculation. The GHG emissions inventory for the land use sectors applicable to the proposed project were then divided by the projected SP for both build-out year 2024 and future year 2030 operational conditions. The SP was calculated based on the most current population and employment projections derived from the California Department of Finance Demographic Research Unit and California Employment Development Department, respectively. The methodology used for quantification of the target efficiency threshold applied to the proposed project is summarized in Table 14. Project-generated GHG emissions that would exceed the efficiency threshold of 4.0 $MTCO_2e$/SP/year in year 2024 or 3.3 $MTCO_2e$/SP/year in 2030 would be considered to have a potentially significant impact on the environment that could conflict with GHG-reduction planning efforts. To be conservative, amortized construction-generated GHG emissions were included in annual operational GHG emissions estimates, consistent with SLOAPCD-recommended methodologies.

Table 14. Project-Level GHG Efficiency Threshold Calculation

	2024	2030
Land Use Sectors GHG Emissions Target[1]	249	213
Population[2]	41,994,283	43,939,250
Employment[3]	19,636,080	20,795,940
Service Population (SP)	61,630,363	64,735,190
GHG Efficiency Threshold ($MTCO_2e$/SP/yr)	4.0	3.3

Note: Employment data for interim years are estimated based on proportionality with population trends based on historical data.
Based on AB 32 Scoping Plan's land use inventory sectors for years 2024 and 2030; Includes transportation sources.
1. Based on ARB 2017 Climate Scoping Plan Update/SB 32 Scoping Plan Emissions Sector targets.
2. California Department of Finance Demographic Research Unit. 2019. Report P-1 "State Population Projections (2010 - 2060)".
3. California Employment Development Department. Employment Projections Labor Market Information Resources and Data, "CA Long-Term. 2016-2026 Statewide Employment Projections". Projected year 2030 employment data was projected based on the average-annual increase for years 2016 through 2026.

Methodology

Short-term Construction Impacts

Short-term emissions were quantified using the CalEEMod, version 2016.3.2, based on estimated acreage and building square footage provided for the proposed project. Other modeling assumptions, including construction equipment requirements, hours of use, worker, and vendor vehicle trips, trip distances and fleet mix were based on model defaults for San Luis Obispo County. To be conservative, construction-generated emissions were amortized assuming a minimum project life of 30 years. In accordance with SLOAPCD-recommended methodologies for the analysis of GHG emissions, amortized construction emissions were included with operational emissions for comparison to applicable GHG significance thresholds. Refer to Appendix C for emissions modeling assumptions and results.

Long-term Operational Air Quality Impacts

Long-term operational GHG emissions were calculated using the CalEEMod, version 2016.3.2. Energy use included emissions associated with natural gas use. Electricity use assumes participation in Monterey Bay Community Power, which provides renewable and carbon-free electricity, per the City's existing commitment. Mobile-source emissions were based on vehicle trip-generation rates for proposed residential land uses derived from the *Transpiration Impact Study* prepared by Central Coast Transportation Consulting (CCTC 2020a). The proposed health club land use, parking spaces and other asphalt surfaces would not generate vehicle trips. The service population for the proposed project was calculated taking into account and estimated project population of 440 individuals. GHG efficiency for the proposed project was calculated for build-out year 2024 and future year 2030, to be in line with SB 32 GHG-reduction target year and reduction goal. Emission modeling files are provided in Appendix C.

Project Impacts and Mitigation Measures

Impact GHG-A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and,

Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 from mobile sources. To a lesser extent, other GHG pollutants, such as CH_4 and N_2O, would also be generated. Short-term and long-term GHG emissions associated with the development of the proposed project are discussed in greater detail, as follows:

Short-term Construction GHG Emissions

Estimated increases in GHG emissions associated with the construction of the proposed project are summarized in Table 15. Based on the modeling conducted, construction-related GHG emissions would total approximately 1,209 $MTCO_2e$. Amortized GHG emissions, when averaged over the assumed 30-year life of the project, would total approximately 40 $MTCO_2e$/year. There would also be a small amount of GHG

emissions from waste generated during construction; however, this amount is speculative. Actual emissions may vary, depending on the final construction schedules, equipment required, and activities conducted. Amortized construction-generated GHG emissions are included in the operational GHG emissions impact discussion provided below.

Table 15. Construction-Generated GHG Emissions Without Mitigation

Construction Year	GHG Emissions ($MTCO_2e$/Year)
2022	449
2023	637
2024	123
Construction Total:	1,209
Amortized Construction Emissions:	40
Amortized emissions are quantified based on a minimum 30-year project life. Refer to Appendix C for modeling assumptions and results.	

Long-term Operational GHG Emissions

Estimated long-term increases in GHG emissions associated with the proposed project for buildout year 2024 and future year 2030 are summarized in Table 16. As depicted, operational GHG emissions for the proposed project, with the inclusion of amortized construction GHGs, would total approximately 1,711.3 $MTCO_2e$/year during the initial year of full operation (year 2024) and 1,502.6 $MTCO_2e$/year for operational year 2030. A majority of the operational GHG emissions would be associated with motor vehicles. To a lesser extent, GHG emissions would also be associated with solid waste generation and energy use. Project-generated GHG emissions are projected to decrease in future years due largely to improvements in vehicle emission standards.

Based on the modeling conducted and assuming a total service population of 440 individuals, the calculated GHG efficiency for the proposed project, without mitigation, would be 3.9 $MTCO_2e$/SP/yr in 2024 and 3.4 $MTCO_2e$/SP/yr in 2030. The GHG efficiency for the proposed project would not exceed the threshold of 4.0 $MTCO_2e$/SP/yr in 2024. However, the GHG efficiency for the proposed project would exceed the threshold of 3.2 $MTCO_2e$/SP/yr in 2030. As a result this impact is considered ***potentially significant***.

Mitigation Measures

GHG-1: The following mitigation measures shall be implemented to reduce long-term operational GHG emissions:

1. All appliances and building mechanical equipment (e.g., water heaters, space heaters, pool heating systems) to be installed in residential structures shall be electric powered. The installation of natural-gas fueled appliances and building mechanical equipment shall be prohibited.
2. The project shall participate in Monterey Bay Community Power.
3. The project shall provide on-site bicycle parking/amenities and electric vehicle charging stations in accordance with applicable building code requirements.
4. The project shall incorporate a pedestrian and bicycle access network that connects proposed on-site land uses to adjacent existing or planned pedestrian and bicycle facilities contiguous with the project site.
5. The project shall be designed to minimize barriers to pedestrian access and interconnectivity.
6. The project shall be designed to provide safe and convenient access to public transit contiguous to the project site.
7. The Project shall provide organic waste pick up and shall provide the appropriate on-site enclosures consistent with the provisions of the City of San Luis Obispo Development Standards for Solid Waste Services.
8. Trees shall be planted in accordance with the City's municipal code requirements.

Table 16. Operational GHG Emissions Without Mitigation

Operational Year/Source	GHG Emissions ($MTCO_2e$/Year)	
	Year 2024	Year 2030
Area Source[1]	4.4	4.4
Energy Use[2]	201.7	201.7
Motor Vehicles[3]	1,379.8	1,171.1
Waste Generation[4]	85.4	85.4
Total Operational Emissions:	1,671.3	1,462.6
Amortized Construction Emissions:	40	40
Total with Amortized Construction Emissions:	1,711.3	1,502.6
Service Population (SP)[5]:	440	440
$MTCO_2e$/SP:	3.9	3.4
GHG Efficiency Significance Threshold:	4.0	3.3
Exceeds Threshold?	No	**Yes**

1. Area source includes emissions associated primarily with the use of landscape maintenance equipment.
2. Includes natural gas use. Assumes participation in Monterey Bay Community Power, which provides renewable and carbon-free electricity, per the City's existing commitment.
3. Based on default fleet mix for non-residential land uses contained in CalEEMod for San Luis Obispo County. Includes CH_4, N_20, and CO_2 mobile source emissions expressed in CO_2e.
4. Based on an average annual waste diversion/recycling rate of 50% based on statewide averages.
5. Based on the estimated number of residents served by the proposed project (SWCA 2020).
Refer to Appendix C for modeling assumptions and results.

Significance After Mitigation

Mitigation measures have been incorporated to promote alternative means of transportation, waste reduction, and the use of carbon-free energy use through the prohibited installation of natural-gas fired appliance and participation in Monterey Bay Community Power. Mitigated operational emissions associated with the proposed project are summarized in Table 17. With implementation of Mitigation Measures GHG-1, operational GHG emissions would be reduced to 3.6 $MTCO_2e$/SP for year 2024 and 3.1 $MTCO_2e$/SP for year 2030. Operational emissions would not exceed corresponding significant thresholds of 4.0 $MTCO_2e$/SP and 3.3 $MTCO_2e$/SP, respectively. With mitigation, this impact would be considered ***less than significant***.

Table 17. Operational GHG Emissions With Mitigation

Operational Year/Source	GHG Emissions ($MTCO_2e$/Year)	
	Year 2024	Year 2030
Area Source[1]	4.4	4.4
Energy Use[2]	201.7	201.7
Motor Vehicles[3]	1,235.0	1,048.8
Waste Generation[4]	85.4	85.4
Total Operational Emissions:	1,529.1	1,339.9
Amortized Construction Emissions:	40	40
Total with Amortized Construction Emissions:	1,569.1	1,379.9
Service Population (SP)[5]:	440	440
$MTCO_2e$/SP:	3.6	3.1
GHG Efficiency Significance Threshold:	4.0	3.3
Exceeds Threshold?	No	No

1. Area source includes emissions associated primarily with the use of landscape maintenance equipment.
2. Includes natural gas use. Assumes participation in Monterey Bay Community Power, which provides renewable and carbon-free electricity, per the City's existing commitment.
3. Based on default fleet mix for non-residential land uses contained in CalEEMod for San Luis Obispo County. Includes CH_4, N_20, and CO_2 mobile source emissions expressed in CO_2e.
4. Based on an average annual waste diversion/recycling rate of 50% based on statewide averages.
5. Based on the estimated number of residents served by the proposed project (SWCA 2020).
Refer to Appendix C for modeling assumptions and results.

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

As noted in Table 19, operational GHG emissions attributable to the proposed project would be primarily associated with mobile sources. Applicable GHG-reduction plans related to reducing operational GHG emissions is the City of San Luis Obispo CAP. The project's consistency with the City's CAP is discussed in greater detail, as follows:

City of San Luis Obispo Climate Action Plan

The City's CAP is a long-range plan to reduce GHG emissions from City government operations and community activities within the community. Projects that are consistent with the demographic forecasts and land use assumptions used I the CAP can utilize the City's CEQA GHG Emissions Analysis Compliance Checklist to demonstrate consistency with the CAP's GHG emissions reduction strategy. If deemed consistent, the project would be considered to have a less-than-significant impact. The following provides a discussion of the proposed project's consistency determination with the City's CAP:

Step 1: Consistency with the Demographic Forecasts and Land Use Assumptions.

The demographic forecasts and land use assumptions of the CAP are based on the Land Use and Circulation Elements of the City's 2014 General Plan. If a plan or project is consistent with the existing 2014 General Plan land use and zoning designations of the project site, then the project would be considered consistent with the demographic forecasts and the land uses assumptions of the CAP and can move on to Step 2.

The proposed Bullock Ranch Project includes a total of 192 residential units, including 96 apartments, 88 bungalows, and 8 live-work units, and approximately 433 on-site parking spaces. The project site is located within the *Orcutt Area Specific Plan* (OASP). The OASP and the City's 2014 General Plan shows medium-high density residential on the project site, which is consistent with the proposed land use.

Step 2: Consistency with the CEQA GHG Emissions Analysis Compliance Checklist.

The City has prepared a CEQA GHG Emissions Analysis Compliance Checklist for plans and projects to ensure that they are consistent with the measures of the CAP. Project's deemed consistent with the measures identified in the checklist would be considered to have a less-than-significant impact.

The proposed Project's consistency with the City's CAP is summarized in Table 18. As noted and with implementation of proposed mitigation measures, the project would be consistent with the City's CAP. With implementation of Mitigation Measure GHG-1, this impact would be considered **less than significant**.

Table 18. Project Consistency with the City's Climate Action Plan

CAP Measures	Project Consistency
Clean Energy Systems	
Does the Project include an operational commitment to participate in Monterey Bay Community Power?	**Consistent with Mitigation**. A mitigation measure has been included to require an operational commitment to participate in Monterey Bay Community Power.
Green Buildings	
Does the Project exclusively include "All-electric buildings"? For the purpose of this checklist, the following	**Consistent with Mitigation**. A mitigation measure has been included to prohibit the installation of natural gas to fuel space heating, water heating, cooking, or clothes drying appliances.
If the Project/Plan includes a new mixed-fuel building or buildings (plumbed for the use of natural gas as fuel for space heating, water heating, cooking or clothes drying appliances) does that building/those buildings meet or exceed the City's Energy Reach code?	
Connected Community	
Does the Project comply with requirements in the City's Municipal Code with no exceptions, including bicycle parking, bikeway design, and EV charging stations?	**Consistent with Mitigation**. A mitigation measure has been included to require compliance with applicable building codes related to bicycle parking, bikeway design, and EV charging stations.
Is the estimated Project-generated Vehicle Miles Traveled (VMT) within the City's adopted thresholds, as confirmed by the City's Transportation Division?	**Consistent**. Based on the traffic analysis prepared for this project, project-generated VMT per capita would be below the City's adopted threshold for residential developments (CCTC 2020b).
If "No", does the Project/Plan include VMT mitigation strategies and/or a Transportation Demand Management (TDM) Plan approved by the City's Transportation Division?	
Does the Project demonstrate consistency with the City's Bicycle Transportation Plan?	**Consistent with Mitigation**. A mitigation measure has been included to require the project to incorporate features to promote alternative means of transportation, including the installation of bicycle facilities connecting to off-site existing or planned bicycle facilities.
Circular Economy	
Will the Project subscribe all units and/or buildings to organic waste pick up and provide the appropriate on-site enclosures consistent with the provisions of the City of San Luis Obispo Development Standards for Solid Waste Services? Please provide a letter from San Luis Garbage company verifying that the project complies with their standards and requirements for organic waste pick up.	**Consistent with Mitigation**. A mitigation measure has been included to require the Project to provide organic waste pick up and provide the appropriate on-site enclosures consistent with the provisions of the City of San Luis Obispo Development Standards for Solid Waste Services.
Natural Solutions	
Does the Project comply with Municipal Code requirements for trees?	**Consistent with Mitigation**. A mitigation measure has been included to require the on-site installation of trees consistent with the City's municipal code requirements.

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APPENDIX A

EMISSIONS MODELING

DAILY EMISSIONS SUMMARY (LBS)

CONSTRUCTION ACTIVITY		ROG	NOX	ROG+NOX	PM10 FUG	PM10 EXH	PM10 TOTAL	PM2.5 FUG	PM2.5 EXH	PM2.5 TOTAL
SUMMER										
DEMOLITION										
	ONSITE	2.64	25.72	28.36	1.02	1.24	2.26	0.15	1.16	1.31
	OFFSITE	0.09	1.23	1.32	0.23	5.61E-03	0.23	0.06	5.34E-03	0.07
	TOTAL	2.73	26.95	29.68	1.24	1.25	2.49	0.21	1.16	1.38
SITE PREPARATION										
	ONSITE	3.17	33.08	36.25	18.07	1.61	19.68	9.93	1.48	11.41
	OFFSITE	0.07	0.05	0.12	0.18	1.07E-03	0.18	0.05	9.90E-04	0.05
	TOTAL	3.24	33.14	36.37	18.24	1.61	19.86	9.98	1.48	11.46
GRADING/EXCAVATION										
	ONSITE	1.95	20.86	22.80	6.29	0.94	7.23	3.34	0.87	4.20
	OFFSITE	0.06	0.04	0.10	0.15	8.90E-04	0.15	0.04	8.20E-04	0.04
	TOTAL	2.00	20.90	22.90	6.44	0.94	7.38	3.38	0.87	4.24
BUILDING CONSTRUCTION - 2022										
	ONSITE	1.71	15.62	17.32		0.81	0.81		0.76	0.76
	OFFSITE	0.74	4.52	5.26	1.84	0.02	1.86	0.49	0.02	0.51
	TOTAL	2.45	20.13	22.58	1.84	0.83	2.67	0.49	0.78	1.27
BUILDING CONSTRUCTION - 2023										
	ONSITE	1.57	14.38	15.96		0.70	0.70		0.66	0.66
	OFFSITE	0.67	3.77	4.44	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2.25	18.15	20.40	1.84	0.71	2.55	0.49	0.67	1.16
BUILDING CONSTRUCTION - 2024										
	ONSITE	1.47	13.44	14.92		0.61	0.61		0.58	0.58
	OFFSITE	0.63	3.65	4.28	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2.11	17.09	19.20	1.84	0.63	2.47	0.49	0.59	1.08
PAVING										
	ONSITE	2.86	10.19	13.05		0.51	0.51		0.47	0.47
	OFFSITE	0.05	0.04	0.09	0.15	8.70E-04	0.15	0.04	8.00E-04	0.04
	TOTAL	2.91	10.23	13.14	0.15	0.51	0.66	0.04	0.47	0.51
ARCHITECTURAL COATING - 2022										
	ONSITE	14.34	1.41	15.74		0.08	0.08		0.08	0.08
	OFFSITE	0.12	0.09	0.22	0.33	1.96E-03	0.33	0.09	1.81E-03	0.09
	TOTAL	14.46	1.50	15.96	0.33	0.08	0.41	0.09	0.08	0.17
ARCHITECTURAL COATING - 2023										
	ONSITE	14.32	1.30	15.63		0.07	0.07		0.07	0.07
	OFFSITE	0.12	0.09	0.20	0.33	1.91E-03	0.33	0.09	1.76E-03	0.09
	TOTAL	14.44	1.39	15.83	0.33	0.07	0.40	0.09	0.07	0.16
ARCHITECTURAL COATING - 2024										
	ONSITE	14.31	1.22	15.53		0.06	0.06		0.06	0.06
	OFFSITE	0.11	0.08	0.19	0.33	1.87E-03	0.33	0.09	1.72E-03	0.09
	TOTAL	14.42	1.30	15.72	0.33	0.06	0.39	0.09	0.06	0.15

DAILY EMISSIONS SUMMARY (LBS)

CONSTRUCTION ACTIVITY		ROG	NOX	ROG+NOX	PM10 FUG	PM10 EXH	PM10 TOTAL	PM2.5 FUG	PM2.5 EXH	PM2.5 TOTAL
WINTER										
DEMOLITION										
	ONSITE	2.64	25.72	28.36	1.02	1.24	2.26	0.15	1.16	1.31
	OFFSITE	0.10	1.24	1.34	0.23	5.70E-03	0.23	0.06	5.45E-03	0.07
	TOTAL	2.74	26.96	29.70	1.24	1.25	2.49	0.21	1.16	1.38
SITE PREPARATION										
	ONSITE	3.17	33.08	36.25	18.07	1.61	19.68	9.93	1.48	11.41
	OFFSITE	0.08	0.06	0.14	0.18	1.07E-03	0.18	0.05	9.90E-04	0.05
	TOTAL	3.25	33.14	36.39	18.24	1.61	19.86	9.98	1.48	11.46
GRADING/EXCAVATION										
	ONSITE	1.95	20.86	22.80	6.29	0.94	7.23	3.34	0.87	4.20
	OFFSITE	0.06	0.05	0.11	0.15	8.90E-04	0.15	0.04	8.20E-04	0.04
	TOTAL	2.01	20.90	22.92	6.44	0.94	7.38	3.38	0.87	4.24
BUILDING CONSTRUCTION - 2022										
	ONSITE	1.71	15.62	17.32		0.81	0.81		0.76	0.76
	OFFSITE	0.84	4.55	5.39	1.84	0.02	1.86	0.49	0.02	0.51
	TOTAL	2.54	20.17	22.71	1.84	0.83	2.67	0.49	0.78	1.27
BUILDING CONSTRUCTION - 2023										
	ONSITE	1.57	14.38	15.96		0.70	0.70		0.66	0.66
	OFFSITE	0.76	3.80	4.56	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2.34	18.18	20.52	1.84	0.71	2.55	0.49	0.67	1.17
BUILDING CONSTRUCTION - 2024										
	ONSITE	1.47	13.44	14.92		0.61	0.61		0.58	0.58
	OFFSITE	0.72	3.68	4.40	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2.19	17.12	19.31	1.84	0.63	2.47	0.49	0.59	1.08
PAVING										
	ONSITE	2.86	10.19	13.05		0.51	0.51		0.47	0.47
	OFFSITE	0.06	0.04	0.10	0.15	8.70E-04	0.15	0.04	8.00E-04	0.04
	TOTAL	2.92	10.24	13.16	0.15	0.51	0.66	3.00	0.47	0.51
ARCHITECTURAL COATING - 2022										
	ONSITE	14.34	1.41	15.74		0.08	0.08		0.08	0.08
	OFFSITE	0.14	0.11	0.25	0.33	1.96E-03	0.33	0.09	1.81E-03	0.09
	TOTAL	14.48	1.52	15.99	0.33	0.08	0.41	0.09	0.08	0.17
ARCHITECTURAL COATING - 2023										
	ONSITE	14.32	1.30	15.63		0.07	0.07		0.07	0.07
	OFFSITE	0.13	0.10	0.23	0.33	1.91E-03	0.33	0.09	1.76E-03	0.09
	TOTAL	14.46	1.40	15.86	0.33	0.07	0.40	0.09	0.07	0.16
ARCHITECTURAL COATING - 2024										
	ONSITE	14.31	1.22	15.53		0.06	0.06		0.06	0.06
	OFFSITE	0.13	0.09	0.21	0.33	1.87E-03	0.33	0.09	1.72E-03	0.09
	TOTAL	14.44	1.31	15.74	0.33	0.06	0.39	0.09	0.06	0.15

ANNUAL EMISSIONS SUMMARY (Tons)

CONSTRUCTION ACTIVITY		EMISSIONS (Tons)								
					PM10			PM2.5		
		ROG	NOX	ROG+NOX	FUG	EXH	TOTAL	FUG	EXH	TOTAL
ANNUAL										
DEMOLITION										
	ONSITE	2.64E-03	0.03	0.03	1.02E-03	1.24E-03	2.26E-03	1.50E-04	1.16E-03	1.31E-03
	OFFSITE	9.0E-05	1.3E-03	0.00	2.20E-04	0.00E+00	2.30E-04	6.00E-05	0.00E+00	7.00E-05
	TOTAL	2.73E-03	0.03	0.03	1.24E-03	1.24E-03	2.49E-03	2.10E-04	1.16E-03	1.38E-03
SITE PREPARATION										
	ONSITE	4.76E-03	0.05	0.05	0.03	2.42E-03	0.03	0.01	2.23E-03	0.02
	OFFSITE	1.00E-04	9.00E-05	1.90E-04	2.60E-04	0.00E+00	2.60E-04	7.00E-05	0.00E+00	7.00E-05
	TOTAL	0.00	0.05	0.05	0.03	0.00	0.03	0.01	0.00	0.02
GRADING/EXCAVATION										
	ONSITE	0.04	0.42	0.46	0.13	0.02	0.14	0.07	0.02	0.08
	OFFSITE	1.15E-03	9.60E-04	0.00	2.89E-03	2.00E-05	2.91E-03	7.70E-04	2.00E-05	7.80E-04
	TOTAL	0.04	0.42	0.46	0.13	0.02	0.15	0.07	0.02	0.08
BUILDING CONSTRUCTION - 2022										
	ONSITE	0.14	1.32	1.46		0.07	0.07		0.06	0.06
	OFFSITE	0.06	0.39	0.45	0.15	1.74E-03	0.15	0.04	1.63E-03	0.04
	TOTAL	0.21	1.71	1.92	0.15	0.07	0.22	0.04	0.07	0.11
BUILDING CONSTRUCTION - 2023										
	ONSITE	0.20	1.87	2.07		0.09	0.09		0.09	0.09
	OFFSITE	0.09	0.50	0.59	0.23	1.89E-03	0.24	0.06	1.77E-03	0.06
	TOTAL	0.29	2.37	2.66	0.23	0.09	0.33	0.06	0.09	0.15
BUILDING CONSTRUCTION - 2024										
	ONSITE	0.04	0.34	0.38		0.02	0.02		0.01	0.01
	OFFSITE	0.02	0.09	0.11	0.05	3.60E-04	0.05	0.01	3.30E-04	0.01
	TOTAL	0.05	0.44	0.49	0.05	0.02	0.06	0.01	0.02	0.03
PAVING										
	ONSITE	7.15E-03	0.03	0.03		1.28E-03	1.28E-03		1.17E-03	1.17E-03
	OFFSITE	1.30E-04	1.10E-04	0.00	3.60E-04	0.00E+00	3.60E-04	1.00E-04	0.00E+00	1.00E-04
	TOTAL	0.01	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00
ARCHITECTURAL COATING										
	ONSITE	0.32	0.03	0.35		1.84E-03	1.84E-03		1.84E-03	1.84E-03
	OFFSITE	2.84E-03	2.37E-03	0.01	7.15E-03	4.00E-05	7.19E-03	1.90E-03	4.00E-05	1.94E-03
	TOTAL	0.33	0.03	0.36	0.01	0.00	0.01	0.00	0.00	0.00

QUARTERLY EMISSIONS CALCULATION - DAILY EMISSIONS/QUARTER

CONSTRUCTION ACTIVITY		QUARTER	DAYS/ QUARTER	EMISSIONS (LBS/DAY)								
							PM10			PM2.5		
				ROG	NOX	ROG+NOX	FUG	EXH	TOTAL	FUG	EXH	TOTAL
LBS/DAY BY QUARTER												
DEMOLITION												
	ONSITE			2.64	25.72	28.36	1.02	1.24	2.26	0.15	1.16	1.31
	OFFSITE			0.10	1.24	1.34	0.23	0.01	0.23	0.06	0.01	0.07
	TOTAL	2022 - Q1	2	2.74	26.96	29.70	1.24	1.25	2.49	0.21	1.16	1.38
SITE PREPARATION												
	ONSITE			3.17	33.08	36.25	18.07	1.61	19.68	9.93	1.48	11.41
	OFFSITE			0.08	0.06	0.14	0.18	0.00	0.18	0.05	0.00	0.05
	TOTAL	2022 - Q1	3	3.25	33.14	36.39	18.24	1.61	19.86	9.98	1.48	11.46
GRADING/EXCAVATION - 2022												
	ONSITE			1.95	20.86	22.80	6.29	0.94	7.23	3.34	0.87	4.20
	OFFSITE			0.06	0.04	0.10	0.15	0.00	0.15	0.04	0.00	0.04
	TOTAL	2022 - Q2	40	2.00	20.90	22.90	6.44	0.94	7.38	3.38	0.87	4.24
BUILDING CONSTRUCTION - 2022												
	ONSITE			1.71	15.62	17.32	0.00	0.81	0.81	0.00	0.76	0.76
	OFFSITE			0.74	4.52	5.26	1.84	0.02	1.86	0.49	0.02	0.51
	TOTAL	2022- Q2	38	2.45	20.13	22.58	1.84	0.83	2.67	0.49	0.78	1.27
BUILDING CONSTRUCTION - 2022												
	ONSITE			1.71	15.62	17.32	0.00	0.81	0.81	0.00	0.76	0.76
	OFFSITE			0.74	4.52	5.26	1.84	0.02	1.86	0.49	0.02	0.51
	TOTAL	2022- Q3	65	2.45	20.13	22.58	1.84	0.83	2.67	0.49	0.78	1.27
BUILDING CONSTRUCTION - 2022												
	ONSITE			1.71	15.62	17.32	0.00	0.81	0.81	0.00	0.76	0.76
	OFFSITE			0.84	4.55	5.39	1.84	0.02	1.86	0.49	0.02	0.51
	TOTAL	2022- Q4	65	2.54	20.17	22.71	1.84	0.83	2.67	0.49	0.78	1.27
BUILDING CONSTRUCTION - 2023												
	ONSITE			1.57	14.38	15.96	0.00	0.70	0.70	0.00	0.66	0.66
	OFFSITE			0.76	3.80	4.56	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2023 - Q1	65	2.34	18.18	20.52	1.84	0.71	2.55	0.49	0.67	1.17
BUILDING CONSTRUCTION - 2023												
	ONSITE			1.57	14.38	15.96	0.00	0.70	0.70	0.00	0.66	0.66
	OFFSITE			0.67	3.77	4.44	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2023 - Q2	65	2.25	18.15	20.40	1.84	0.71	2.55	0.49	0.67	1.16
BUILDING CONSTRUCTION - 2023												
	ONSITE			1.57	14.38	15.96	0.00	0.70	0.70	0.00	0.66	0.66
	OFFSITE			0.67	3.77	4.44	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2023 - Q3	65	2.25	18.15	20.40	1.84	0.71	2.55	0.49	0.67	1.16
BUILDING CONSTRUCTION - 2023												
	ONSITE			1.57	14.38	15.96	0.00	0.70	0.70	0.00	0.66	0.66
	OFFSITE			0.76	3.80	4.56	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2023 - Q4	65	2.34	18.18	20.52	1.84	0.71	2.55	0.49	0.67	1.17

BUILDING CONSTRUCTION - 2024												
	ONSITE			1.47	13.44	14.92	0.00	0.61	0.61	0.00	0.58	0.58
	OFFSITE			0.63	3.65	4.28	1.84	0.01	1.85	0.49	0.01	0.51
	TOTAL	2024 - Q1	52	2.11	17.09	19.20	1.84	0.63	2.47	0.49	0.59	1.08
PAVING - 2023												
	ONSITE			2.86	10.19	13.05	0.00	0.51	0.51	0.00	0.47	0.47
	OFFSITE			0.06	0.04	0.10	0.15	0.00	0.15	0.04	0.00	0.04
	TOTAL	2023 - Q1	4	2.92	10.24	13.16	0.15	0.51	0.66	3.00	0.47	0.51
PAVING - 2023												
	ONSITE			2.86	10.19	13.05	0.00	0.51	0.51	0.00	0.47	0.47
	OFFSITE			0.05	0.04	0.09	0.15	0.00	0.15	0.04	0.00	0.04
	TOTAL	2023 - Q2	1	2.91	10.23	13.14	0.15	0.51	0.66	0.04	0.47	0.51
ARCHITECTURAL COATING - 2022												
	ONSITE			14.34	1.41	15.74	0.00	0.08	0.08	0.00	0.08	0.08
	OFFSITE			0.14	0.11	0.25	0.33	0.00	0.33	0.09	0.00	0.09
	TOTAL	2022 - Q4	65	14.48	1.52	15.99	0.33	0.08	0.41	0.09	0.08	0.17
ARCHITECTURAL COATING - 2023												
	ONSITE			14.32	1.30	15.63	0.00	0.07	0.07	0.00	0.07	0.07
	OFFSITE			0.13	0.10	0.23	0.33	0.00	0.33	0.09	0.00	0.09
	TOTAL	2023 - Q1	65	14.46	1.40	15.86	0.33	0.07	0.40	0.09	0.07	0.16
ARCHITECTURAL COATING - 20223												
	ONSITE			14.32	1.30	15.63	0.00	0.07	0.07	0.00	0.07	0.07
	OFFSITE			0.12	0.09	0.20	0.33	0.00	0.33	0.09	0.00	0.09
	TOTAL	2023 - Q2	65	14.44	1.39	15.83	0.33	0.07	0.40	0.09	0.07	0.16
ARCHITECTURAL COATING - 2023												
	ONSITE			14.32	1.30	15.63	0.00	0.07	0.07	0.00	0.07	0.07
	OFFSITE			0.12	0.09	0.20	0.33	0.00	0.33	0.09	0.00	0.09
	TOTAL	2023 - Q3	65	14.44	1.39	15.83	0.33	0.07	0.40	0.09	0.07	0.16
ARCHITECTURAL COATING - 2023												
	ONSITE			14.32	1.30	15.63	0.00	0.07	0.07	0.00	0.07	0.07
	OFFSITE			0.13	0.10	0.23	0.33	0.00	0.33	0.09	0.00	0.09
	TOTAL	2023 - Q4	65	14.46	1.40	15.86	0.33	0.07	0.40	0.09	0.07	0.16
ARCHITECTURAL COATING - 2024												
	ONSITE			14.31	1.22	15.53	0.00	0.06	0.06	0.00	0.06	0.06
	OFFSITE			0.13	0.09	0.21	0.33	0.00	0.33	0.09	0.00	0.09
	TOTAL	2024 - Q1	56	14.44	1.31	15.74	0.33	0.06	0.39	0.09	0.06	0.15

DAILY EMISSIONS SUMMARY (LBS/DAY)

		ROG+NOX		EX PM10				
2022	Q1	66.089	19.487	2.862	22.349	10.193	2.645	12.838
	Q2	45.483	8.276	1.771	10.047	3.871	1.647	5.518
	Q3	22.580	1.840	0.829	2.670	0.493	0.780	1.273
	Q4	38.705	2.166	0.914	3.080	0.579	0.864	1.444
2023	Q1	49.533	2.315	1.298	3.613	3.579	1.215	1.834
	Q2	49.368	2.166	0.903	3.069	0.579	0.853	1.433
	Q3	36.347	2.166	0.787	2.954	0.579	0.745	1.324
	Q4	36.375	2.166	0.787	2.954	0.579	0.745	1.324
2024	Q1	34.944	2.167	0.690	2.856	0.579	0.652	1.232

SLOAPCD THRESHOLDS	137.00		7.00
EXCEEDS?	NO		NO

QUARTERLY EMISSIONS CALCULATION - LBS/QUARTER

CONSTRUCTION ACTIVITY	EMISSIONS (LBS/QTR)						
		PM10			PM2.5		
	ROG+NOX	FUG	EXH	TOTAL	FUG	EXH	TOTAL
LBS/QUARTER							
DEMOLITION							
2022 - Q1	59.40	2.49	2.50	4.98	0.43	2.32	2.75
SITE PREPARATION							
2022 - Q1	109.17	54.73	4.84	59.57	29.93	4.45	34.39
GRADING/EXCAVATION - 2022							
2022 - Q2	916.11	257.42	37.67	295.09	135.13	34.66	169.78
BUILDING CONSTRUCTION - 2022							
2022- Q2	858.04	69.93	31.51	101.44	18.73	29.65	48.38
BUILDING CONSTRUCTION - 2022							
2022- Q3	1467.71	119.61	53.90	173.52	32.03	50.72	82.75
BUILDING CONSTRUCTION - 2022							
2022- Q4	1476.27	119.61	53.95	173.56	32.03	50.76	82.79
BUILDING CONSTRUCTION - 2023							
2023 - Q1	1333.81	119.61	46.44	166.05	32.03	43.69	75.73
BUILDING CONSTRUCTION - 2023							
2023 - Q2	1325.79	119.61	46.42	166.04	32.03	43.67	75.71
BUILDING CONSTRUCTION - 2023							
2023 - Q3	1325.79	119.61	46.42	166.04	32.03	43.67	75.71
BUILDING CONSTRUCTION - 2023							
2023 - Q4	1333.81	119.61	46.44	166.05	32.03	43.69	75.73

BUILDING CONSTRUCTION - 2024

2024 - Q1	998.42	95.70	32.61	128.30	25.63	30.67	56.30

PAVING - 2023

2023 - Q1	52.63	0.59	2.04	2.64	12.00	1.88	2.04

PAVING - 2023

2019 - Q3	13.14	0.15	0.51	0.66	0.04	0.47	0.51

ARCHITECTURAL COATING - 2022

2022 - Q4	1039.53	21.20	5.44	26.64	5.62	5.43	11.05

ARCHITECTURAL COATING - 2023

2019 - Q4	1030.59	21.20	4.73	25.94	5.62	4.72	10.34

ARCHITECTURAL COATING - 20223

2023 - Q2	1028.72	21.20	4.73	25.94	5.62	4.72	10.34

ARCHITECTURAL COATING - 2023

2020 - Q2	1028.72	21.20	4.73	25.94	5.62	4.72	10.34

ARCHITECTURAL COATING - 2023

2023 - Q4	1030.59	21.20	4.73	25.94	5.62	4.72	10.34

ARCHITECTURAL COATING - 2024

2024 - Q1	881.62	18.27	3.52	21.78	4.84	3.51	8.36

QUARTERLY EMISSIONS SUMMARY (LBS/QTR)

2022	Q1	168.568	57.219	7.338	64.556	30.363	6.775	37.138
	Q2	1774.156	327.348	69.185	396.533	153.854	64.308	218.162
	Q3	1467.707	119.613	53.905	173.518	32.032	50.720	82.752
	Q4	2515.793	140.816	59.388	200.200	37.655	56.187	93.841
2023	Q1	2417.031	141.409	53.206	194.622	49.655	50.284	88.105
	Q2	2367.653	140.964	51.654	192.630	37.694	48.860	86.557
	Q3	2362.536	140.816	51.162	191.984	37.655	48.403	86.067
	Q4	2364.401	140.816	51.162	191.984	37.655	48.403	86.067
2024	Q1	1880.040	113.963	36.124	150.089	30.475	34.176	64.656

QUARTERLY EMISSIONS CALCULATION - TONS/QUARTER

CONSTRUCTION ACTIVITY	EMISSIONS (TONS/QTR)						
		PM10			PM2.5		
	ROG+NOX	FUG	EXH	TOTAL	FUG	EXH	TOTAL
TONS/QTR							
DEMOLITION							
			0.001				
			0.000				
2022 - Q1	0.030	0.001	0.001	0.002	0.000	0.001	0.001
SITE PREPARATION							
			0.002				
			0.000				
2022 - Q1	0.055	0.027	0.002	0.030	0.015	0.002	0.017
GRADING/EXCAVATION - 2022							
			0.019				
			0.000				
2022 - Q2	0.458	0.129	0.019	0.148	0.068	0.017	0.085
BUILDING CONSTRUCTION - 2022							
			0.015				
			0.000				
2022- Q2	0.429	0.035	0.016	0.051	0.009	0.015	0.024
BUILDING CONSTRUCTION - 2022							
			0.026				
			0.001				
2022- Q3	0.734	0.060	0.027	0.087	0.016	0.025	0.041
BUILDING CONSTRUCTION - 2022							
			0.026				
			0.001				
2022- Q4	0.738	0.060	0.027	0.087	0.016	0.025	0.041
BUILDING CONSTRUCTION - 2023							
			0.023				
			0.000				
2023 - Q1	0.667	0.060	0.023	0.083	0.016	0.022	0.038
BUILDING CONSTRUCTION - 2023							
			0.023				
			0.000				
2023 - Q2	0.663	0.060	0.023	0.083	0.016	0.022	0.038
BUILDING CONSTRUCTION - 2023							
			0.023				
			0.000				
2023 - Q3	0.663	0.060	0.023	0.083	0.016	0.022	0.038
BUILDING CONSTRUCTION - 2023							
			0.023				
			0.000				
2023 - Q4	0.667	0.060	0.023	0.083	0.016	0.022	0.038

BUILDING CONSTRUCTION - 2024

			0.016				
			0.000				
2024 - Q1	0.499	0.048	0.016	0.064	0.013	0.015	0.028

PAVING - 2023

			0.001				
			0.000				
2023 - Q1	0.026	0.000	0.001	0.001	0.006	0.001	0.001

PAVING - 2023

			0.000				
			0.000				
2023 - Q2	0.007	0.000	0.000	0.000	0.000	0.000	0.000

ARCHITECTURAL COATING - 2022

			0.003				
			0.000				
2022 - Q4	0.520	0.011	0.003	0.013	0.003	0.003	0.006

ARCHITECTURAL COATING - 2023

			0.002				
			0.000				
2023 - Q1	0.515	0.011	0.002	0.013	0.003	0.002	0.005

ARCHITECTURAL COATING - 20223

			0.002				
			0.000				
2023 - Q2	0.514	0.011	0.002	0.013	0.003	0.002	0.005

ARCHITECTURAL COATING - 2023

			0.002				
			0.000				
2023 - Q3	0.514	0.011	0.002	0.013	0.003	0.002	0.005

ARCHITECTURAL COATING - 2023

			0.002				
			0.000				
2023 - Q4	0.515	0.011	0.002	0.013	0.003	0.002	0.005

ARCHITECTURAL COATING - 2024

			0.002				
			0.000				
2024 - Q1	0.441	0.009	0.002	0.011	0.002	0.002	0.004

QUARTERLY EMISSIONS SUMMARY (TONS/QTR)

		ROG+NOX	FUG PM10	EXH PM10				
2022	Q1	0.08	0.03	0.00	0.03	0.015	0.003	0.019
	Q2	0.89	0.16	0.03	0.20	0.077	0.032	0.109
	Q3	0.73	0.06	0.03	0.09	0.016	0.025	0.041
	Q4	1.26	0.07	0.03	0.10	0.019	0.028	0.047
2023	Q1	1.21	0.07	0.03	0.10	0.025	0.025	0.044
	Q2	1.18	0.07	0.03	0.10	0.019	0.024	0.043
	Q3	1.18	0.07	0.03	0.10	0.019	0.024	0.043
	Q4	1.18	0.07	0.03	0.10	0.019	0.024	0.043
2024	Q1	0.94	0.06	0.02	0.08	0.015	0.017	0.032

THRESHOLD	2.5 / 6.3	2.5	0.13 / 0.32
EXCEEDS?	No	No	No

GHG EMISSIONS SUMMARY

UNMITIGATED EMISSIONS	YEAR 2025	YEAR 2030
Area Sources	4.4	4.4
Nat Gas	201.7	201.7
Electricity	0.0	0.0
Motor Vehicles	1379.8	1171.1
Waste Generation	85.4	85.4
Water Use and Conveyance	0.0	0.0
Total Operational Emissions:	1671.3	1462.6
Amortized Construction Emissions:	40.0	40.0
Total with Amortized Construction Emissions:	1,711.3	1,502.6
Service Population (SP)[6]:	440	440
MTCO2e/SP:	3.9	3.4
GHG Efficiency Significance Threshold:	4.0	3.3
Exceeds Threshold?	No	**Yes**

MITIGATED EMISSIONS	YEAR 2025	YEAR 2030
Area Sources	4.4	4.4
Nat Gas	201.7	201.7
Electricity	0.0	0.0
Motor Vehicles	1235.0	1048.8
Waste Generation	88.0	85.0
Water Use and Conveyance	0.0	0.0
Total Operational Emissions:	1529.1	1339.9
Amortized Construction Emissions:	40.0	40.0
Total with Amortized Construction Emissions:	1569.1	1379.9
Service Population (SP)[6]:	440	440
MTCO2e/SP:	3.6	3.1
GHG Efficiency Significance Threshold:	4	3.3
Exceeds Threshold?	No	No

**Mitigation includes the installation of pedestrian improvements to promote alternative transportation, such as sidewalks/paths linking to off-site land uses and transit.*
Electricity use, including on-site electricity use and off-site electricity use associated with water conveyance and treatment, assumes participation in Monterey Community Power, which is a renewable and carbon-free energy provider.

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	143.75	1000sqft	3.30	143,754.00	0
Parking Lot	8.38	1000sqft	0.20	8,385.00	0
Health Club	2.27	1000sqft	0.05	2.27	0
Apartments Low Rise	88.00	Dwelling Unit	1.20	52,340.00	252
Single Family Housing	96.00	Dwelling Unit	2.25	98,150.00	275
Apartments Mid Rise	8.00	Dwelling Unit	0.19	8,275.00	23

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	395.25	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factors adjusted to RTP standards

Land Use - sqft based on measurements from google earth

Construction Phase - based on construction info provided

Off-road Equipment - default equp

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default eqip

Trips and VMT - default values

On-road Fugitive Dust - default values

Demolition - two one level approximately 1000sqft houses to be demolished

Grading - default

Architectural Coating - VOC to 50g/L except parking lot paint

Vehicle Trips - wkdy trips based on traffic report, weeked trips have equivilant % change based on default

Area Coating - still has 250 g/L assumption

Energy Use -

Construction Off-road Equipment Mitigation - equipment is Tier 3

Energy Mitigation -

Water Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00

tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	381.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	PhaseEndDate	5/22/2023	3/11/2024
tblConstructionPhase	PhaseEndDate	3/27/2023	3/11/2024
tblConstructionPhase	PhaseEndDate	3/28/2022	3/2/2022
tblConstructionPhase	PhaseEndDate	5/9/2022	6/6/2022
tblConstructionPhase	PhaseEndDate	4/24/2023	4/3/2023
tblConstructionPhase	PhaseEndDate	4/11/2022	3/31/2022
tblConstructionPhase	PhaseStartDate	4/25/2023	9/26/2022
tblGrading	AcresOfGrading	20.00	10.00
tblLandUse	LandUseSquareFeet	143,750.00	143,754.00
tblLandUse	LandUseSquareFeet	8,380.00	8,385.00

tblLandUse	LandUseSquareFeet	2,270.00	2.27
tblLandUse	LandUseSquareFeet	88,000.00	52,340.00
tblLandUse	LandUseSquareFeet	172,800.00	98,150.00
tblLandUse	LandUseSquareFeet	8,000.00	8,275.00
tblLandUse	LotAcreage	0.19	0.20
tblLandUse	LotAcreage	5.50	1.20
tblLandUse	LotAcreage	31.17	2.25
tblLandUse	LotAcreage	0.21	0.19
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	395.25
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	ST_TR	7.16	7.95
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.91	9.82
tblVehicleTrips	ST_TR	6.39	9.13
tblVehicleTrips	SU_TR	6.07	6.74
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	SU_TR	5.86	8.41
tblVehicleTrips	WD_TR	6.59	7.32
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.52	9.44
tblVehicleTrips	WD_TR	6.65	9.50

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					
2022	5.5630	41.0409	38.1316	0.0813	18.2442	1.7712	19.8579	9.9779	1.6468	11.4624						7,996.6904
2023	8.2604	29.7799	39.4682	0.0795	2.3543	1.2982	3.6525	0.6292	1.2149	1.8440						7,816.4766
2024	5.1827	18.3994	23.9222	0.0548	2.2060	0.6902	2.8962	0.5899	0.6527	1.2425						5,396.8044
Maximum	**8.2604**	**41.0409**	**39.4682**	**0.0813**	**18.2442**	**1.7712**	**19.8579**	**9.9779**	**1.6468**	**11.4624**						**7,996.6904**

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					
2022	5.5630	41.0409	38.1316	0.0813	7.2238	1.7712	8.8374	3.9202	1.6468	5.4047						7,996.6904
2023	8.2604	29.7799	39.4682	0.0795	2.3543	1.2982	3.6525	0.6292	1.2149	1.8440						7,816.4766
2024	5.1827	18.3994	23.9222	0.0548	2.2060	0.6902	2.8962	0.5899	0.6527	1.2425						5,396.8044
Maximum	**8.2604**	**41.0409**	**39.4682**	**0.0813**	**7.2238**	**1.7712**	**8.8374**	**3.9202**	**1.6468**	**5.4047**						**7,996.6904**

- San Luis Obispo County, Summer

	ROG	NOx	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**	**48.33**	**0.00**	**41.73**	**54.10**	**0.00**	**41.64**	**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	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Energy	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300
Mobile	2.4159	8.8660	26.1365	0.0906	9.2392	0.0775	9.3167	2.4664	0.0724	2.5388						9,167.0056
Total	**7.8333**	**9.9970**	**42.3811**	**0.0975**	**9.2392**	**0.2421**	**9.4813**	**2.4664**	**0.2369**	**2.7034**						**10,414.3765**

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	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Energy	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300
Mobile	2.3288	8.2939	23.8630	0.0811	8.2055	0.0699	8.2753	2.1905	0.0652	2.2557						8,204.7745
Total	**7.7462**	**9.4249**	**40.1076**	**0.0880**	**8.2055**	**0.2344**	**8.4399**	**2.1905**	**0.2298**	**2.4203**						**9,452.1454**

	ROG	NOx	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	**1.11**	**5.72**	**5.36**	**9.77**	**11.19**	**3.15**	**10.98**	**11.19**	**3.01**	**10.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**9.24**

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	3/1/2022	3/2/2022	5	2	
2	Site Preparation	Site Preparation	3/29/2022	3/31/2022	5	3	
3	Grading	Grading	4/12/2022	6/6/2022	5	40	
4	Building Construction	Building Construction	5/10/2022	3/11/2024	5	480	
5	Paving	Paving	3/28/2023	4/3/2023	5	5	
6	Architectural Coating	Architectural Coating	9/26/2022	3/11/2024	5	381	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 3.5

Residential Indoor: 321,499; Residential Outdoor: 107,166; Non-Residential Indoor: 3; Non-Residential Outdoor: 1; Striped Parking Area: 9,128 (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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	9.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	168.00	45.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0161	0.0000	1.0161	0.1539	0.0000	0.1539						0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553						3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.0161**	**1.2427**	**2.2587**	**0.1539**	**1.1553**	**1.3091**						**3,773.0920**

3.2 Demolition - 2022

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	0.0337	1.1879	0.2812	3.4700e-003	0.0786	4.7200e-003	0.0833	0.0215	4.5200e-003	0.0261						375.7671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0561	0.0430	0.4437	1.3000e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						129.1642
Total	**0.0898**	**1.2309**	**0.7249**	**4.7700e-003**	**0.2269**	**5.6100e-003**	**0.2325**	**0.0609**	**5.3400e-003**	**0.0662**						**504.9313**

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					0.3963	0.0000	0.3963	0.0600	0.0000	0.0600						0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553						3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.3963**	**1.2427**	**1.6389**	**0.0600**	**1.1553**	**1.2153**						**3,773.0920**

3.2 Demolition - 2022

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	0.0337	1.1879	0.2812	3.4700e-003	0.0786	4.7200e-003	0.0833	0.0215	4.5200e-003	0.0261						375.7671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0561	0.0430	0.4437	1.3000e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						129.1642
Total	**0.0898**	**1.2309**	**0.7249**	**4.7700e-003**	**0.2269**	**5.6100e-003**	**0.2325**	**0.0609**	**5.3400e-003**	**0.0662**						**504.9313**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307						0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836						3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**						**3,715.8655**

3.3 Site Preparation - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0673	0.0517	0.5324	1.5500e-003	0.1780	1.0700e-003	0.1790	0.0472	9.9000e-004	0.0482						154.9970
Total	**0.0673**	**0.0517**	**0.5324**	**1.5500e-003**	**0.1780**	**1.0700e-003**	**0.1790**	**0.0472**	**9.9000e-004**	**0.0482**						**154.9970**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730						0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836						3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**7.0458**	**1.6126**	**8.6584**	**3.8730**	**1.4836**	**5.3565**						**3,715.8655**

3.3 Site Preparation - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0673	0.0517	0.5324	1.5500e-003	0.1780	1.0700e-003	0.1790	0.0472	9.9000e-004	0.0482						154.9970
Total	**0.0673**	**0.0517**	**0.5324**	**1.5500e-003**	**0.1780**	**1.0700e-003**	**0.1790**	**0.0472**	**9.9000e-004**	**0.0482**						**154.9970**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2872	0.0000	6.2872	3.3389	0.0000	3.3389						0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656						2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.2872**	**0.9409**	**7.2281**	**3.3389**	**0.8656**	**4.2044**						**2,895.2684**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0561	0.0430	0.4437	1.3000e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						129.1642
Total	**0.0561**	**0.0430**	**0.4437**	**1.3000e-003**	**0.1483**	**8.9000e-004**	**0.1492**	**0.0393**	**8.2000e-004**	**0.0402**						**129.1642**

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					
Fugitive Dust					2.4520	0.0000	2.4520	1.3022	0.0000	1.3022						0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656						2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**2.4520**	**0.9409**	**3.3929**	**1.3022**	**0.8656**	**2.1677**						**2,895.2684**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0561	0.0430	0.4437	1.3000e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						129.1642
Total	**0.0561**	**0.0430**	**0.4437**	**1.3000e-003**	**0.1483**	**8.9000e-004**	**0.1492**	**0.0393**	**8.2000e-004**	**0.0402**						**129.1642**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612						2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**						**2,569.6322**

3.5 Building Construction - 2022

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
Vendor	0.1233	4.0449	1.0824	8.9500e-003	0.2090	0.0105	0.2194	0.0602	0.0100	0.0702						955.9868
Worker	0.6278	0.4821	4.9694	0.0145	1.6609	9.9900e-003	1.6709	0.4405	9.2200e-003	0.4497						1,446.6389
Total	**0.7511**	**4.5270**	**6.0518**	**0.0235**	**1.8698**	**0.0205**	**1.8903**	**0.5007**	**0.0192**	**0.5199**						**2,402.6256**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612						2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**						**2,569.6322**

3.5 Building Construction - 2022

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
Vendor	0.1233	4.0449	1.0824	8.9500e-003	0.2090	0.0105	0.2194	0.0602	0.0100	0.0702						955.9868
Worker	0.6278	0.4821	4.9694	0.0145	1.6609	9.9900e-003	1.6709	0.4405	9.2200e-003	0.4497						1,446.6389
Total	**0.7511**	**4.5270**	**6.0518**	**0.0235**	**1.8698**	**0.0205**	**1.8903**	**0.5007**	**0.0192**	**0.5199**						**2,402.6256**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584						2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**						**2,570.4061**

3.5 Building Construction - 2023

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
Vendor	0.0941	3.3405	0.9554	8.7900e-003	0.2090	4.8800e-003	0.2139	0.0602	4.6600e-003	0.0649						940.3852
Worker	0.5892	0.4334	4.5472	0.0140	1.6609	9.7400e-003	1.6706	0.4405	8.9800e-003	0.4495						1,392.2964
Total	**0.6833**	**3.7739**	**5.5026**	**0.0228**	**1.8699**	**0.0146**	**1.8845**	**0.5007**	**0.0136**	**0.5143**						**2,332.6815**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584						2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**						**2,570.4061**

3.5 Building Construction - 2023

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
Vendor	0.0941	3.3405	0.9554	8.7900e-003	0.2090	4.8800e-003	0.2139	0.0602	4.6600e-003	0.0649						940.3852
Worker	0.5892	0.4334	4.5472	0.0140	1.6609	9.7400e-003	1.6706	0.4405	8.9800e-003	0.4495						1,392.2964
Total	**0.6833**	**3.7739**	**5.5026**	**0.0228**	**1.8699**	**0.0146**	**1.8845**	**0.5007**	**0.0136**	**0.5143**						**2,332.6815**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**						**2,570.8077**

3.5 Building Construction - 2024

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
Vendor	0.0892	3.2665	0.8979	8.7300e-003	0.2090	4.5000e-003	0.2135	0.0602	4.3000e-003	0.0645						935.2553
Worker	0.5549	0.3912	4.1978	0.0134	1.6609	9.5100e-003	1.6704	0.4405	8.7600e-003	0.4493						1,338.0927
Total	**0.6441**	**3.6577**	**5.0957**	**0.0221**	**1.8699**	**0.0140**	**1.8839**	**0.5007**	**0.0131**	**0.5138**						**2,273.3480**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**						**2,570.8077**

3.5 Building Construction - 2024

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
Vendor	0.0892	3.2665	0.8979	8.7300e-003	0.2090	4.5000e-003	0.2135	0.0602	4.3000e-003	0.0645						935.2553
Worker	0.5549	0.3912	4.1978	0.0134	1.6609	9.5100e-003	1.6704	0.4405	8.7600e-003	0.4493						1,338.0927
Total	**0.6441**	**3.6577**	**5.0957**	**0.0221**	**1.8699**	**0.0140**	**1.8839**	**0.5007**	**0.0131**	**0.5138**						**2,273.3480**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694						2,225.4336
Paving	1.8340					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**2.8667**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**						**2,225.4336**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0526	0.0387	0.4060	1.2500e-003	0.1483	8.7000e-004	0.1492	0.0393	8.0000e-004	0.0401						124.3122
Total	**0.0526**	**0.0387**	**0.4060**	**1.2500e-003**	**0.1483**	**8.7000e-004**	**0.1492**	**0.0393**	**8.0000e-004**	**0.0401**						**124.3122**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694						2,225.4336
Paving	1.8340					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**2.8667**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**						**2,225.4336**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0526	0.0387	0.4060	1.2500e-003	0.1483	8.7000e-004	0.1492	0.0393	8.0000e-004	0.0401						124.3122
Total	**0.0526**	**0.0387**	**0.4060**	**1.2500e-003**	**0.1483**	**8.7000e-004**	**0.1492**	**0.0393**	**8.0000e-004**	**0.0401**						**124.3122**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817						281.9062
Total	**2.9786**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**						**281.9062**

3.7 Architectural Coating - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1271	0.0976	1.0057	2.9400e-003	0.3361	2.0200e-003	0.3382	0.0892	1.8700e-003	0.0910						292.7722
Total	**0.1271**	**0.0976**	**1.0057**	**2.9400e-003**	**0.3361**	**2.0200e-003**	**0.3382**	**0.0892**	**1.8700e-003**	**0.0910**						**292.7722**

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	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817						281.9062
Total	**2.9786**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**						**281.9062**

3.7 Architectural Coating - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1271	0.0976	1.0057	2.9400e-003	0.3361	2.0200e-003	0.3382	0.0892	1.8700e-003	0.0910						292.7722
Total	**0.1271**	**0.0976**	**1.0057**	**2.9400e-003**	**0.3361**	**2.0200e-003**	**0.3382**	**0.0892**	**1.8700e-003**	**0.0910**						**292.7722**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708						281.8690
Total	**2.9657**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**						**281.8690**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1193	0.0877	0.9203	2.8300e-003	0.3361	1.9700e-003	0.3381	0.0892	1.8200e-003	0.0910						281.7743
Total	**0.1193**	**0.0877**	**0.9203**	**2.8300e-003**	**0.3361**	**1.9700e-003**	**0.3381**	**0.0892**	**1.8200e-003**	**0.0910**						**281.7743**

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	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708						281.8690
Total	**2.9657**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**						**281.8690**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1193	0.0877	0.9203	2.8300e-003	0.3361	1.9700e-003	0.3381	0.0892	1.8200e-003	0.0910						281.7743
Total	**0.1193**	**0.0877**	**0.9203**	**2.8300e-003**	**0.3361**	**1.9700e-003**	**0.3381**	**0.0892**	**1.8200e-003**	**0.0910**						**281.7743**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609						281.8443
Total	**2.9548**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**						**281.8443**

3.7 Architectural Coating - 2024

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1123	0.0792	0.8496	2.7100e-003	0.3361	1.9200e-003	0.3381	0.0892	1.7700e-003	0.0909						270.8045
Total	**0.1123**	**0.0792**	**0.8496**	**2.7100e-003**	**0.3361**	**1.9200e-003**	**0.3381**	**0.0892**	**1.7700e-003**	**0.0909**						**270.8045**

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	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609						281.8443
Total	**2.9548**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**						**281.8443**

3.7 Architectural Coating - 2024

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1123	0.0792	0.8496	2.7100e-003	0.3361	1.9200e-003	0.3381	0.0892	1.7700e-003	0.0909						270.8045
Total	**0.1123**	**0.0792**	**0.8496**	**2.7100e-003**	**0.3361**	**1.9200e-003**	**0.3381**	**0.0892**	**1.7700e-003**	**0.0909**						**270.8045**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	2.3288	8.2939	23.8630	0.0811	8.2055	0.0699	8.2753	2.1905	0.0652	2.2557						8,204.7745
Unmitigated	2.4159	8.8660	26.1365	0.0906	9.2392	0.0775	9.3167	2.4664	0.0724	2.5388						9,167.0056

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	644.16	699.60	593.12	1,638,767	1,455,405
Health Club	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	906.24	942.72	820.80	2,285,484	2,029,762
Apartments Mid Rise	76.00	73.04	67.28	188,918	167,780
Total	1,626.40	1,715.36	1,481.20	4,113,169	3,652,947

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Health Club	13.00	5.00	5.00	16.90	64.10	19.00	52	39	9
Other Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Health Club	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Other Asphalt Surfaces	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Parking Lot	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Single Family Housing	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Apartments Mid Rise	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

- San Luis Obispo County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300
NaturalGas Unmitigated	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300

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					
Apartments Low Rise	2458.9	0.0265	0.2266	0.0964	1.4500e-003		0.0183	0.0183		0.0183	0.0183						291.0015
Apartments Mid Rise	189.358	2.0400e-003	0.0175	7.4300e-003	1.1000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003						22.4098
Health Club	0.164062	0.0000	2.0000e-005	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000						0.0194
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	7644.52	0.0824	0.7045	0.2998	4.5000e-003		0.0570	0.0570		0.0570	0.0570						904.6993
Total		**0.1110**	**0.9486**	**0.4037**	**6.0600e-003**		**0.0767**	**0.0767**		**0.0767**	**0.0767**						**1,218.1300**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	2.4589	0.0265	0.2266	0.0964	1.4500e-003		0.0183	0.0183		0.0183	0.0183						291.0015
Apartments Mid Rise	0.189358	2.0400e-003	0.0175	7.4300e-003	1.1000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003						22.4098
Health Club	0.000164062	0.0000	2.0000e-005	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000						0.0194
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	7.64452	0.0824	0.7045	0.2998	4.5000e-003		0.0570	0.0570		0.0570	0.0570						904.6993
Total		**0.1110**	**0.9486**	**0.4037**	**6.0600e-003**		**0.0767**	**0.0767**		**0.0767**	**0.0767**						**1,218.1300**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Unmitigated	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409

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	1.3783					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	3.4515					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.4766	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Total	**5.3064**	**0.1824**	**15.8410**	**8.4000e-004**		**0.0879**	**0.0879**		**0.0879**	**0.0879**						**29.2409**

6.2 Area by SubCategory

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	1.3783					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	3.4515					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.4766	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Total	**5.3064**	**0.1824**	**15.8410**	**8.4000e-004**		**0.0879**	**0.0879**		**0.0879**	**0.0879**						**29.2409**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

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

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	143.75	1000sqft	3.30	143,754.00	0
Parking Lot	8.38	1000sqft	0.20	8,385.00	0
Health Club	2.27	1000sqft	0.05	2.27	0
Apartments Low Rise	88.00	Dwelling Unit	1.20	52,340.00	252
Single Family Housing	96.00	Dwelling Unit	2.25	98,150.00	275
Apartments Mid Rise	8.00	Dwelling Unit	0.19	8,275.00	23

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	395.25	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

- San Luis Obispo County, Winter

Project Characteristics - Intensity factors adjusted to RTP standards

Land Use - sqft based on measurements from google earth

Construction Phase - based on construction info provided

Off-road Equipment - default equp

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default eqip

Trips and VMT - default values

On-road Fugitive Dust - default values

Demolition - two one level approximately 1000sqft houses to be demolished

Grading - default

Architectural Coating - VOC to 50g/L except parking lot paint

Vehicle Trips - wkdy trips based on traffic report, weeked trips have equivilant % change based on default

Area Coating - still has 250 g/L assumption

Energy Use -

Construction Off-road Equipment Mitigation - equipment is Tier 3

Energy Mitigation -

Water Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00

tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	381.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	PhaseEndDate	5/22/2023	3/11/2024
tblConstructionPhase	PhaseEndDate	3/27/2023	3/11/2024
tblConstructionPhase	PhaseEndDate	3/28/2022	3/2/2022
tblConstructionPhase	PhaseEndDate	5/9/2022	6/6/2022
tblConstructionPhase	PhaseEndDate	4/24/2023	4/3/2023
tblConstructionPhase	PhaseEndDate	4/11/2022	3/31/2022
tblConstructionPhase	PhaseStartDate	4/25/2023	9/26/2022
tblGrading	AcresOfGrading	20.00	10.00
tblLandUse	LandUseSquareFeet	143,750.00	143,754.00
tblLandUse	LandUseSquareFeet	8,380.00	8,385.00

tblLandUse	LandUseSquareFeet	2,270.00	2.27
tblLandUse	LandUseSquareFeet	88,000.00	52,340.00
tblLandUse	LandUseSquareFeet	172,800.00	98,150.00
tblLandUse	LandUseSquareFeet	8,000.00	8,275.00
tblLandUse	LotAcreage	0.19	0.20
tblLandUse	LotAcreage	5.50	1.20
tblLandUse	LotAcreage	31.17	2.25
tblLandUse	LotAcreage	0.21	0.19
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	395.25
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	ST_TR	7.16	7.95
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.91	9.82
tblVehicleTrips	ST_TR	6.39	9.13
tblVehicleTrips	SU_TR	6.07	6.74
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	SU_TR	5.86	8.41
tblVehicleTrips	WD_TR	6.59	7.32
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.52	9.44
tblVehicleTrips	WD_TR	6.65	9.50

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					
2022	5.6804	41.0820	38.1041	0.0803	18.2442	1.7719	19.8579	9.9779	1.6474	11.4624						7,893.2835
2023	8.3795	29.8293	39.3798	0.0784	2.3543	1.2985	3.6528	0.6292	1.2151	1.8443						7,702.5860
2024	5.2901	18.4362	23.8464	0.0538	2.2060	0.6904	2.8964	0.5899	0.6529	1.2427						5,291.9369
Maximum	**8.3795**	**41.0820**	**39.3798**	**0.0803**	**18.2442**	**1.7719**	**19.8579**	**9.9779**	**1.6474**	**11.4624**						**7,893.2835**

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					
2022	5.6804	41.0820	38.1041	0.0803	7.2238	1.7719	8.8374	3.9202	1.6474	5.4047						7,893.2835
2023	8.3795	29.8293	39.3798	0.0784	2.3543	1.2985	3.6528	0.6292	1.2151	1.8443						7,702.5860
2024	5.2901	18.4362	23.8464	0.0538	2.2060	0.6904	2.8964	0.5899	0.6529	1.2427						5,291.9369
Maximum	**8.3795**	**41.0820**	**39.3798**	**0.0803**	**7.2238**	**1.7719**	**8.8374**	**3.9202**	**1.6474**	**5.4047**						**7,893.2835**

- San Luis Obispo County, Winter

	ROG	NOx	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**	**48.33**	**0.00**	**41.73**	**54.10**	**0.00**	**41.64**	**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	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Energy	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300
Mobile	2.3167	9.1733	26.4670	0.0870	9.2392	0.0778	9.3170	2.4664	0.0726	2.5391						8,805.3752
Total	**7.7341**	**10.3043**	**42.7116**	**0.0939**	**9.2392**	**0.2424**	**9.4816**	**2.4664**	**0.2372**	**2.7036**						**10,052.7461**

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	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Energy	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300
Mobile	2.2303	8.5659	24.3363	0.0779	8.2055	0.0702	8.2756	2.1905	0.0655	2.2560						7,878.6694
Total	**7.6477**	**9.6969**	**40.5809**	**0.0848**	**8.2055**	**0.2347**	**8.4402**	**2.1905**	**0.2301**	**2.4206**						**9,126.0403**

	ROG	NOx	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	**1.12**	**5.90**	**4.99**	**9.75**	**11.19**	**3.14**	**10.98**	**11.19**	**3.00**	**10.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**9.22**

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	3/1/2022	3/2/2022	5	2	
2	Site Preparation	Site Preparation	3/29/2022	3/31/2022	5	3	
3	Grading	Grading	4/12/2022	6/6/2022	5	40	
4	Building Construction	Building Construction	5/10/2022	3/11/2024	5	480	
5	Paving	Paving	3/28/2023	4/3/2023	5	5	
6	Architectural Coating	Architectural Coating	9/26/2022	3/11/2024	5	381	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 3.5

Residential Indoor: 321,499; Residential Outdoor: 107,166; Non-Residential Indoor: 3; Non-Residential Outdoor: 1; Striped Parking Area: 9,128 (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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	9.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	168.00	45.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0161	0.0000	1.0161	0.1539	0.0000	0.1539						0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553						3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.0161**	**1.2427**	**2.2587**	**0.1539**	**1.1553**	**1.3091**						**3,773.0920**

3.2 Demolition - 2022

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	0.0347	1.1938	0.2984	3.4100e-003	0.0786	4.8400e-003	0.0834	0.0215	4.6300e-003	0.0262						370.0381
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0642	0.0488	0.4295	1.2300e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						123.1185
Total	**0.0989**	**1.2426**	**0.7278**	**4.6400e-003**	**0.2269**	**5.7300e-003**	**0.2326**	**0.0609**	**5.4500e-003**	**0.0663**						**493.1566**

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					0.3963	0.0000	0.3963	0.0600	0.0000	0.0600						0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553						3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.3963**	**1.2427**	**1.6389**	**0.0600**	**1.1553**	**1.2153**						**3,773.0920**

3.2 Demolition - 2022

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	0.0347	1.1938	0.2984	3.4100e-003	0.0786	4.8400e-003	0.0834	0.0215	4.6300e-003	0.0262						370.0381
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0642	0.0488	0.4295	1.2300e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						123.1185
Total	**0.0989**	**1.2426**	**0.7278**	**4.6400e-003**	**0.2269**	**5.7300e-003**	**0.2326**	**0.0609**	**5.4500e-003**	**0.0663**						**493.1566**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307						0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836						3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**						**3,715.8655**

3.3 Site Preparation - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0770	0.0586	0.5154	1.4800e-003	0.1780	1.0700e-003	0.1790	0.0472	9.9000e-004	0.0482						147.7422
Total	**0.0770**	**0.0586**	**0.5154**	**1.4800e-003**	**0.1780**	**1.0700e-003**	**0.1790**	**0.0472**	**9.9000e-004**	**0.0482**						**147.7422**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730						0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836						3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**7.0458**	**1.6126**	**8.6584**	**3.8730**	**1.4836**	**5.3565**						**3,715.8655**

3.3 Site Preparation - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0770	0.0586	0.5154	1.4800e-003	0.1780	1.0700e-003	0.1790	0.0472	9.9000e-004	0.0482						147.7422
Total	**0.0770**	**0.0586**	**0.5154**	**1.4800e-003**	**0.1780**	**1.0700e-003**	**0.1790**	**0.0472**	**9.9000e-004**	**0.0482**						**147.7422**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2872	0.0000	6.2872	3.3389	0.0000	3.3389						0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656						2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.2872**	**0.9409**	**7.2281**	**3.3389**	**0.8656**	**4.2044**						**2,895.2684**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0642	0.0488	0.4295	1.2300e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						123.1185
Total	**0.0642**	**0.0488**	**0.4295**	**1.2300e-003**	**0.1483**	**8.9000e-004**	**0.1492**	**0.0393**	**8.2000e-004**	**0.0402**						**123.1185**

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					2.4520	0.0000	2.4520	1.3022	0.0000	1.3022						0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656						2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**2.4520**	**0.9409**	**3.3929**	**1.3022**	**0.8656**	**2.1677**						**2,895.2684**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0642	0.0488	0.4295	1.2300e-003	0.1483	8.9000e-004	0.1492	0.0393	8.2000e-004	0.0402						123.1185
Total	**0.0642**	**0.0488**	**0.4295**	**1.2300e-003**	**0.1483**	**8.9000e-004**	**0.1492**	**0.0393**	**8.2000e-004**	**0.0402**						**123.1185**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612						2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**						**2,569.6322**

3.5 Building Construction - 2022

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
Vendor	0.1314	4.0155	1.2285	8.6700e-003	0.2090	0.0111	0.2201	0.0602	0.0107	0.0708						926.3368
Worker	0.7188	0.5469	4.8101	0.0138	1.6609	9.9900e-003	1.6709	0.4405	9.2200e-003	0.4497						1,378.9276
Total	**0.8502**	**4.5624**	**6.0385**	**0.0225**	**1.8698**	**0.0211**	**1.8910**	**0.5007**	**0.0199**	**0.5206**						**2,305.2644**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612						2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**						**2,569.6322**

3.5 Building Construction - 2022

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
Vendor	0.1314	4.0155	1.2285	8.6700e-003	0.2090	0.0111	0.2201	0.0602	0.0107	0.0708						926.3368
Worker	0.7188	0.5469	4.8101	0.0138	1.6609	9.9900e-003	1.6709	0.4405	9.2200e-003	0.4497						1,378.9276
Total	**0.8502**	**4.5624**	**6.0385**	**0.0225**	**1.8698**	**0.0211**	**1.8910**	**0.5007**	**0.0199**	**0.5206**						**2,305.2644**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584						2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**						**2,570.4061**

3.5 Building Construction - 2023

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
Vendor	0.1004	3.3148	1.0717	8.5200e-003	0.2090	5.1300e-003	0.2141	0.0602	4.9000e-003	0.0651						910.6477
Worker	0.6766	0.4916	4.3887	0.0133	1.6609	9.7400e-003	1.6706	0.4405	8.9800e-003	0.4495						1,327.1455
Total	**0.7770**	**3.8064**	**5.4604**	**0.0218**	**1.8699**	**0.0149**	**1.8847**	**0.5007**	**0.0139**	**0.5146**						**2,237.7933**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584						2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**						**2,570.4061**

3.5 Building Construction - 2023

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
Vendor	0.1004	3.3148	1.0717	8.5200e-003	0.2090	5.1300e-003	0.2141	0.0602	4.9000e-003	0.0651						910.6477
Worker	0.6766	0.4916	4.3887	0.0133	1.6609	9.7400e-003	1.6706	0.4405	8.9800e-003	0.4495						1,327.1455
Total	**0.7770**	**3.8064**	**5.4604**	**0.0218**	**1.8699**	**0.0149**	**1.8847**	**0.5007**	**0.0139**	**0.5146**						**2,237.7933**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**						**2,570.8077**

3.5 Building Construction - 2024

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
Vendor	0.0952	3.2404	1.0082	8.4600e-003	0.2090	4.7200e-003	0.2138	0.0602	4.5200e-003	0.0647						905.6500
Worker	0.6393	0.4435	4.0430	0.0128	1.6609	9.5100e-003	1.6704	0.4405	8.7600e-003	0.4493						1,275.4984
Total	**0.7344**	**3.6839**	**5.0513**	**0.0213**	**1.8699**	**0.0142**	**1.8842**	**0.5007**	**0.0133**	**0.5140**						**2,181.1484**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**						**2,570.8077**

3.5 Building Construction - 2024

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
Vendor	0.0952	3.2404	1.0082	8.4600e-003	0.2090	4.7200e-003	0.2138	0.0602	4.5200e-003	0.0647						905.6500
Worker	0.6393	0.4435	4.0430	0.0128	1.6609	9.5100e-003	1.6704	0.4405	8.7600e-003	0.4493						1,275.4984
Total	**0.7344**	**3.6839**	**5.0513**	**0.0213**	**1.8699**	**0.0142**	**1.8842**	**0.5007**	**0.0133**	**0.5140**						**2,181.1484**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694						2,225.4336
Paving	1.8340					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**2.8667**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**						**2,225.4336**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0604	0.0439	0.3919	1.1900e-003	0.1483	8.7000e-004	0.1492	0.0393	8.0000e-004	0.0401						118.4951
Total	**0.0604**	**0.0439**	**0.3919**	**1.1900e-003**	**0.1483**	**8.7000e-004**	**0.1492**	**0.0393**	**8.0000e-004**	**0.0401**						**118.4951**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694						2,225.4336
Paving	1.8340					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**2.8667**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**						**2,225.4336**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0604	0.0439	0.3919	1.1900e-003	0.1483	8.7000e-004	0.1492	0.0393	8.0000e-004	0.0401						118.4951
Total	**0.0604**	**0.0439**	**0.3919**	**1.1900e-003**	**0.1483**	**8.7000e-004**	**0.1492**	**0.0393**	**8.0000e-004**	**0.0401**						**118.4951**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817						281.9062
Total	**2.9786**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**						**281.9062**

3.7 Architectural Coating - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1455	0.1107	0.9735	2.8000e-003	0.3361	2.0200e-003	0.3382	0.0892	1.8700e-003	0.0910						279.0687
Total	**0.1455**	**0.1107**	**0.9735**	**2.8000e-003**	**0.3361**	**2.0200e-003**	**0.3382**	**0.0892**	**1.8700e-003**	**0.0910**						**279.0687**

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	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817						281.9062
Total	**2.9786**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**						**281.9062**

3.7 Architectural Coating - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1455	0.1107	0.9735	2.8000e-003	0.3361	2.0200e-003	0.3382	0.0892	1.8700e-003	0.0910						279.0687
Total	**0.1455**	**0.1107**	**0.9735**	**2.8000e-003**	**0.3361**	**2.0200e-003**	**0.3382**	**0.0892**	**1.8700e-003**	**0.0910**						**279.0687**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708						281.8690
Total	**2.9657**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**						**281.8690**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1369	0.0995	0.8882	2.6900e-003	0.3361	1.9700e-003	0.3381	0.0892	1.8200e-003	0.0910						268.5890
Total	**0.1369**	**0.0995**	**0.8882**	**2.6900e-003**	**0.3361**	**1.9700e-003**	**0.3381**	**0.0892**	**1.8200e-003**	**0.0910**						**268.5890**

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	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708						281.8690
Total	**2.9657**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**						**281.8690**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1369	0.0995	0.8882	2.6900e-003	0.3361	1.9700e-003	0.3381	0.0892	1.8200e-003	0.0910						268.5890
Total	**0.1369**	**0.0995**	**0.8882**	**2.6900e-003**	**0.3361**	**1.9700e-003**	**0.3381**	**0.0892**	**1.8200e-003**	**0.0910**						**268.5890**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609						281.8443
Total	**2.9548**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**						**281.8443**

3.7 Architectural Coating - 2024

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1294	0.0898	0.8182	2.5900e-003	0.3361	1.9200e-003	0.3381	0.0892	1.7700e-003	0.0909						258.1366
Total	**0.1294**	**0.0898**	**0.8182**	**2.5900e-003**	**0.3361**	**1.9200e-003**	**0.3381**	**0.0892**	**1.7700e-003**	**0.0909**						**258.1366**

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	2.7740					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609						281.8443
Total	**2.9548**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**						**281.8443**

3.7 Architectural Coating - 2024

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1294	0.0898	0.8182	2.5900e-003	0.3361	1.9200e-003	0.3381	0.0892	1.7700e-003	0.0909						258.1366
Total	**0.1294**	**0.0898**	**0.8182**	**2.5900e-003**	**0.3361**	**1.9200e-003**	**0.3381**	**0.0892**	**1.7700e-003**	**0.0909**						**258.1366**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	2.2303	8.5659	24.3363	0.0779	8.2055	0.0702	8.2756	2.1905	0.0655	2.2560						7,878.6694
Unmitigated	2.3167	9.1733	26.4670	0.0870	9.2392	0.0778	9.3170	2.4664	0.0726	2.5391						8,805.3752

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	644.16	699.60	593.12	1,638,767	1,455,405
Health Club	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	906.24	942.72	820.80	2,285,484	2,029,762
Apartments Mid Rise	76.00	73.04	67.28	188,918	167,780
Total	1,626.40	1,715.36	1,481.20	4,113,169	3,652,947

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Health Club	13.00	5.00	5.00	16.90	64.10	19.00	52	39	9
Other Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Health Club	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Other Asphalt Surfaces	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Parking Lot	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Single Family Housing	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Apartments Mid Rise	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

- San Luis Obispo County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300
NaturalGas Unmitigated	0.1110	0.9486	0.4037	6.0500e-003		0.0767	0.0767		0.0767	0.0767						1,218.1300

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					
Apartments Low Rise	2458.9	0.0265	0.2266	0.0964	1.4500e-003		0.0183	0.0183		0.0183	0.0183						291.0015
Apartments Mid Rise	189.358	2.0400e-003	0.0175	7.4300e-003	1.1000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003						22.4098
Health Club	0.164062	0.0000	2.0000e-005	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000						0.0194
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	7644.52	0.0824	0.7045	0.2998	4.5000e-003		0.0570	0.0570		0.0570	0.0570						904.6993
Total		**0.1110**	**0.9486**	**0.4037**	**6.0600e-003**		**0.0767**	**0.0767**		**0.0767**	**0.0767**						**1,218.1300**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	2.4589	0.0265	0.2266	0.0964	1.4500e-003		0.0183	0.0183		0.0183	0.0183						291.0015
Apartments Mid Rise	0.189358	2.0400e-003	0.0175	7.4300e-003	1.1000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003						22.4098
Health Club	0.000164062	0.0000	2.0000e-005	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000						0.0194
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	7.64452	0.0824	0.7045	0.2998	4.5000e-003		0.0570	0.0570		0.0570	0.0570						904.6993
Total		**0.1110**	**0.9486**	**0.4037**	**6.0600e-003**		**0.0767**	**0.0767**		**0.0767**	**0.0767**						**1,218.1300**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Unmitigated	5.3064	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409

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	1.3783					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	3.4515					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.4766	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Total	**5.3064**	**0.1824**	**15.8410**	**8.4000e-004**		**0.0879**	**0.0879**		**0.0879**	**0.0879**						**29.2409**

6.2 Area by SubCategory

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	1.3783					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	3.4515					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.4766	0.1824	15.8410	8.4000e-004		0.0879	0.0879		0.0879	0.0879						29.2409
Total	**5.3064**	**0.1824**	**15.8410**	**8.4000e-004**		**0.0879**	**0.0879**		**0.0879**	**0.0879**						**29.2409**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

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

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	143.75	1000sqft	3.30	143,754.00	0
Parking Lot	8.38	1000sqft	0.20	8,385.00	0
Health Club	2.27	1000sqft	0.05	2.27	0
Apartments Low Rise	88.00	Dwelling Unit	1.20	52,340.00	252
Single Family Housing	96.00	Dwelling Unit	2.25	98,150.00	275
Apartments Mid Rise	8.00	Dwelling Unit	0.19	8,275.00	23

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	395.25	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

- San Luis Obispo County, Annual

Project Characteristics - Intensity factors adjusted to RTP

Land Use - sqft based on measurements from google earth

Construction Phase - based on construction info provided

Off-road Equipment - default equp

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default eqip

Trips and VMT - default values

On-road Fugitive Dust - default values

Demolition - two one level approximately 1000sqft houses to be demolished

Grading - default

Architectural Coating - VOC to 50g/L except parking lot paint

Vehicle Trips - wkdy trips based on traffic report, weeked trips have equivilant % change based on default

Area Coating - still has 250 g/L assumption

Energy Use -

Construction Off-road Equipment Mitigation - equipment is Tier 3

Energy Mitigation -

Water Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00

tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	381.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	PhaseEndDate	5/22/2023	3/11/2024
tblConstructionPhase	PhaseEndDate	3/27/2023	3/11/2024
tblConstructionPhase	PhaseEndDate	3/28/2022	3/2/2022
tblConstructionPhase	PhaseEndDate	5/9/2022	6/6/2022
tblConstructionPhase	PhaseEndDate	4/24/2023	4/3/2023
tblConstructionPhase	PhaseEndDate	4/11/2022	3/31/2022
tblConstructionPhase	PhaseStartDate	4/25/2023	9/26/2022
tblGrading	AcresOfGrading	20.00	10.00
tblLandUse	LandUseSquareFeet	143,750.00	143,754.00
tblLandUse	LandUseSquareFeet	8,380.00	8,385.00

tblLandUse	LandUseSquareFeet	2,270.00	2.27
tblLandUse	LandUseSquareFeet	88,000.00	52,340.00
tblLandUse	LandUseSquareFeet	172,800.00	98,150.00
tblLandUse	LandUseSquareFeet	8,000.00	8,275.00
tblLandUse	LotAcreage	0.19	0.20
tblLandUse	LotAcreage	5.50	1.20
tblLandUse	LotAcreage	31.17	2.25
tblLandUse	LotAcreage	0.21	0.19
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	395.25
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	ST_TR	7.16	7.95
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.91	9.82
tblVehicleTrips	ST_TR	6.39	9.13
tblVehicleTrips	SU_TR	6.07	6.74
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	SU_TR	5.86	8.41
tblVehicleTrips	WD_TR	6.59	7.32
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.52	9.44
tblVehicleTrips	WD_TR	6.65	9.50

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3657	2.2567	2.3491	5.1200e-003	0.3226	0.0956	0.4182	0.1271	0.0896	0.2167						457.6750
2023	0.7043	2.5767	3.2018	7.1700e-003	0.2798	0.1036	0.3834	0.0750	0.0980	0.1730						640.8528
2024	0.1327	0.4709	0.6066	1.3800e-003	0.0548	0.0176	0.0724	0.0147	0.0166	0.0313						123.1056
Maximum	**0.7043**	**2.5767**	**3.2018**	**7.1700e-003**	**0.3226**	**0.1036**	**0.4182**	**0.1271**	**0.0980**	**0.2167**						**640.8528**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3657	2.2567	2.3491	5.1200e-003	0.2288	0.0956	0.3243	0.0772	0.0896	0.1668						457.6747
2023	0.7043	2.5767	3.2018	7.1700e-003	0.2798	0.1036	0.3834	0.0750	0.0980	0.1730						640.8524
2024	0.1327	0.4709	0.6066	1.3800e-003	0.0548	0.0176	0.0724	0.0147	0.0166	0.0313						123.1055
Maximum	**0.7043**	**2.5767**	**3.2018**	**7.1700e-003**	**0.2798**	**0.1036**	**0.3834**	**0.0772**	**0.0980**	**0.1730**						**640.8524**

- San Luis Obispo County, Annual

	ROG	NOx	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**	**14.28**	**0.00**	**10.74**	**23.03**	**0.00**	**11.86**	**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	**3-1-2022**	**5-31-2022**	0.6468	0.6468
2	**6-1-2022**	**8-31-2022**	0.7916	0.7916
3	**9-1-2022**	**11-30-2022**	0.8468	0.8468
4	**12-1-2022**	**2-28-2023**	0.8309	0.8309
5	**3-1-2023**	**5-31-2023**	0.8524	0.8524
6	**6-1-2023**	**8-31-2023**	0.8178	0.8178
7	**9-1-2023**	**11-30-2023**	0.8123	0.8123
8	**12-1-2023**	**2-29-2024**	0.7857	0.7857
9	**3-1-2024**	**5-31-2024**	0.0932	0.0932
		Highest	0.8524	0.8524

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	0.9601	0.0301	2.6138	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3769
Energy	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						416.8741
Mobile	0.3896	1.5747	4.4626	0.0150	1.5428	0.0133	1.5560	0.4127	0.0124	0.4251						1,379.8049
Waste						0.0000	0.0000		0.0000	0.0000						85.4178
Water						0.0000	0.0000		0.0000	0.0000						34.5481
Total	**1.3699**	**1.7779**	**7.1500**	**0.0163**	**1.5428**	**0.0418**	**1.5845**	**0.4127**	**0.0409**	**0.4536**						**1,921.0218**

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	0.9601	0.0301	2.6138	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3769
Energy	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						412.8242
Mobile	0.3748	1.4706	4.0951	0.0135	1.3701	0.0120	1.3821	0.3665	0.0112	0.3777						1,234.9543
Waste						0.0000	0.0000		0.0000	0.0000						85.4178
Water						0.0000	0.0000		0.0000	0.0000						28.6427
Total	**1.3551**	**1.6739**	**6.7826**	**0.0147**	**1.3701**	**0.0405**	**1.4106**	**0.3665**	**0.0397**	**0.4062**						**1,766.2160**

	ROG	NOx	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	**1.08**	**5.85**	**5.14**	**9.71**	**11.19**	**3.13**	**10.98**	**11.19**	**2.98**	**10.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8.06**

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	3/1/2022	3/2/2022	5	2	
2	Site Preparation	Site Preparation	3/29/2022	3/31/2022	5	3	
3	Grading	Grading	4/12/2022	6/6/2022	5	40	
4	Building Construction	Building Construction	5/10/2022	3/11/2024	5	480	
5	Paving	Paving	3/28/2023	4/3/2023	5	5	
6	Architectural Coating	Architectural Coating	9/26/2022	3/11/2024	5	381	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 3.5

Residential Indoor: 321,499; Residential Outdoor: 107,166; Non-Residential Indoor: 3; Non-Residential Outdoor: 1; Striped Parking Area: 9,128 (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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	9.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	168.00	45.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0200e-003	0.0000	1.0200e-003	1.5000e-004	0.0000	1.5000e-004						0.0000
Off-Road	2.6400e-003	0.0257	0.0206	4.0000e-005		1.2400e-003	1.2400e-003		1.1600e-003	1.1600e-003						3.4229
Total	**2.6400e-003**	**0.0257**	**0.0206**	**4.0000e-005**	**1.0200e-003**	**1.2400e-003**	**2.2600e-003**	**1.5000e-004**	**1.1600e-003**	**1.3100e-003**						**3.4229**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.2100e-003	2.9000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005						0.3387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	6.0000e-005	5.0000e-005	4.3000e-004	0.0000	1.4000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005						0.1126
Total	**9.0000e-005**	**1.2600e-003**	**7.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**						**0.4513**

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					4.0000e-004	0.0000	4.0000e-004	6.0000e-005	0.0000	6.0000e-005						0.0000
Off-Road	2.6400e-003	0.0257	0.0206	4.0000e-005		1.2400e-003	1.2400e-003		1.1600e-003	1.1600e-003						3.4229
Total	**2.6400e-003**	**0.0257**	**0.0206**	**4.0000e-005**	**4.0000e-004**	**1.2400e-003**	**1.6400e-003**	**6.0000e-005**	**1.1600e-003**	**1.2200e-003**						**3.4229**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.2100e-003	2.9000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005						0.3387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	6.0000e-005	5.0000e-005	4.3000e-004	0.0000	1.4000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005						0.1126
Total	**9.0000e-005**	**1.2600e-003**	**7.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**						**0.4513**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0271	0.0000	0.0271	0.0149	0.0000	0.0149						0.0000
Off-Road	4.7600e-003	0.0496	0.0296	6.0000e-005		2.4200e-003	2.4200e-003		2.2300e-003	2.2300e-003						5.0565
Total	**4.7600e-003**	**0.0496**	**0.0296**	**6.0000e-005**	**0.0271**	**2.4200e-003**	**0.0295**	**0.0149**	**2.2300e-003**	**0.0171**						**5.0565**

3.3 Site Preparation - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.0000e-004	9.0000e-005	7.7000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005						0.2027
Total	**1.0000e-004**	**9.0000e-005**	**7.7000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**						**0.2027**

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					0.0106	0.0000	0.0106	5.8100e-003	0.0000	5.8100e-003						0.0000
Off-Road	4.7600e-003	0.0496	0.0296	6.0000e-005		2.4200e-003	2.4200e-003		2.2300e-003	2.2300e-003						5.0565
Total	**4.7600e-003**	**0.0496**	**0.0296**	**6.0000e-005**	**0.0106**	**2.4200e-003**	**0.0130**	**5.8100e-003**	**2.2300e-003**	**8.0400e-003**						**5.0565**

3.3 Site Preparation - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.0000e-004	9.0000e-005	7.7000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005						0.2027
Total	**1.0000e-004**	**9.0000e-005**	**7.7000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**						**0.2027**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1257	0.0000	0.1257	0.0668	0.0000	0.0668						0.0000
Off-Road	0.0390	0.4171	0.3055	5.9000e-004		0.0188	0.0188		0.0173	0.0173						52.5309
Total	**0.0390**	**0.4171**	**0.3055**	**5.9000e-004**	**0.1257**	**0.0188**	**0.1446**	**0.0668**	**0.0173**	**0.0841**						**52.5309**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.1500e-003	9.6000e-004	8.5700e-003	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.8000e-004						2.2520
Total	**1.1500e-003**	**9.6000e-004**	**8.5700e-003**	**2.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9100e-003**	**7.7000e-004**	**2.0000e-005**	**7.8000e-004**						**2.2520**

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					0.0490	0.0000	0.0490	0.0260	0.0000	0.0260						0.0000
Off-Road	0.0390	0.4171	0.3055	5.9000e-004		0.0188	0.0188		0.0173	0.0173						52.5308
Total	**0.0390**	**0.4171**	**0.3055**	**5.9000e-004**	**0.0490**	**0.0188**	**0.0679**	**0.0260**	**0.0173**	**0.0434**						**52.5308**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.1500e-003	9.6000e-004	8.5700e-003	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.8000e-004						2.2520
Total	**1.1500e-003**	**9.6000e-004**	**8.5700e-003**	**2.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9100e-003**	**7.7000e-004**	**2.0000e-005**	**7.8000e-004**						**2.2520**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1442	1.3195	1.3827	2.2800e-003		0.0684	0.0684		0.0643	0.0643						196.9806
Total	**0.1442**	**1.3195**	**1.3827**	**2.2800e-003**		**0.0684**	**0.0684**		**0.0643**	**0.0643**						**196.9806**

3.5 Building Construction - 2022

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
Vendor	0.0107	0.3439	0.0979	7.5000e-004	0.0173	9.1000e-004	0.0182	4.9900e-003	8.7000e-004	5.8600e-003						72.3277
Worker	0.0543	0.0454	0.4054	1.1800e-003	0.1367	8.4000e-004	0.1375	0.0363	7.8000e-004	0.0371						106.5664
Total	**0.0650**	**0.3893**	**0.5033**	**1.9300e-003**	**0.1540**	**1.7500e-003**	**0.1557**	**0.0413**	**1.6500e-003**	**0.0430**						**178.8941**

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	0.1442	1.3195	1.3827	2.2800e-003		0.0684	0.0684		0.0643	0.0643						196.9804
Total	**0.1442**	**1.3195**	**1.3827**	**2.2800e-003**		**0.0684**	**0.0684**		**0.0643**	**0.0643**						**196.9804**

3.5 Building Construction - 2022

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
Vendor	0.0107	0.3439	0.0979	7.5000e-004	0.0173	9.1000e-004	0.0182	4.9900e-003	8.7000e-004	5.8600e-003						72.3277
Worker	0.0543	0.0454	0.4054	1.1800e-003	0.1367	8.4000e-004	0.1375	0.0363	7.8000e-004	0.0371						106.5664
Total	**0.0650**	**0.3893**	**0.5033**	**1.9300e-003**	**0.1540**	**1.7500e-003**	**0.1557**	**0.0413**	**1.6500e-003**	**0.0430**						**178.8941**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856						303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**						**303.1383**

3.5 Building Construction - 2023

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
Vendor	0.0126	0.4363	0.1323	1.1300e-003	0.0266	6.5000e-004	0.0272	7.6800e-003	6.2000e-004	8.3000e-003						109.4291
Worker	0.0785	0.0627	0.5696	1.7400e-003	0.2103	1.2700e-003	0.2115	0.0559	1.1700e-003	0.0570						157.7914
Total	**0.0911**	**0.4990**	**0.7019**	**2.8700e-003**	**0.2369**	**1.9200e-003**	**0.2388**	**0.0636**	**1.7900e-003**	**0.0653**						**267.2205**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856						303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**						**303.1380**

3.5 Building Construction - 2023

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
Vendor	0.0126	0.4363	0.1323	1.1300e-003	0.0266	6.5000e-004	0.0272	7.6800e-003	6.2000e-004	8.3000e-003						109.4291
Worker	0.0785	0.0627	0.5696	1.7400e-003	0.2103	1.2700e-003	0.2115	0.0559	1.1700e-003	0.0570						157.7914
Total	**0.0911**	**0.4990**	**0.7019**	**2.8700e-003**	**0.2369**	**1.9200e-003**	**0.2388**	**0.0636**	**1.7900e-003**	**0.0653**						**267.2205**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0375	0.3428	0.4123	6.9000e-004		0.0156	0.0156		0.0147	0.0147						59.4710
Total	**0.0375**	**0.3428**	**0.4123**	**6.9000e-004**		**0.0156**	**0.0156**		**0.0147**	**0.0147**						**59.4710**

3.5 Building Construction - 2024

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
Vendor	2.3400e-003	0.0837	0.0244	2.2000e-004	5.2200e-003	1.2000e-004	5.3300e-003	1.5100e-003	1.1000e-004	1.6200e-003						21.3476
Worker	0.0145	0.0111	0.1030	3.3000e-004	0.0412	2.4000e-004	0.0415	0.0110	2.2000e-004	0.0112						29.7468
Total	**0.0169**	**0.0948**	**0.1274**	**5.5000e-004**	**0.0465**	**3.6000e-004**	**0.0468**	**0.0125**	**3.3000e-004**	**0.0128**						**51.0944**

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	0.0375	0.3428	0.4123	6.9000e-004		0.0156	0.0156		0.0147	0.0147						59.4710
Total	**0.0375**	**0.3428**	**0.4123**	**6.9000e-004**		**0.0156**	**0.0156**		**0.0147**	**0.0147**						**59.4710**

3.5 Building Construction - 2024

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
Vendor	2.3400e-003	0.0837	0.0244	2.2000e-004	5.2200e-003	1.2000e-004	5.3300e-003	1.5100e-003	1.1000e-004	1.6200e-003						21.3476
Worker	0.0145	0.0111	0.1030	3.3000e-004	0.0412	2.4000e-004	0.0415	0.0110	2.2000e-004	0.0112						29.7468
Total	**0.0169**	**0.0948**	**0.1274**	**5.5000e-004**	**0.0465**	**3.6000e-004**	**0.0468**	**0.0125**	**3.3000e-004**	**0.0128**						**51.0944**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5800e-003	0.0255	0.0365	6.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003						5.0472
Paving	4.5900e-003					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**7.1700e-003**	**0.0255**	**0.0365**	**6.0000e-005**		**1.2800e-003**	**1.2800e-003**		**1.1700e-003**	**1.1700e-003**						**5.0472**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.3000e-004	1.1000e-004	9.8000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004						0.2709
Total	**1.3000e-004**	**1.1000e-004**	**9.8000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**						**0.2709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5800e-003	0.0255	0.0365	6.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003						5.0472
Paving	4.5900e-003					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**7.1700e-003**	**0.0255**	**0.0365**	**6.0000e-005**		**1.2800e-003**	**1.2800e-003**		**1.1700e-003**	**1.1700e-003**						**5.0472**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.3000e-004	1.1000e-004	9.8000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004						0.2709
Total	**1.3000e-004**	**1.1000e-004**	**9.8000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**						**0.2709**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0971					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	7.1600e-003	0.0493	0.0635	1.0000e-004		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003						8.9509
Total	**0.1043**	**0.0493**	**0.0635**	**1.0000e-004**		**2.8600e-003**	**2.8600e-003**		**2.8600e-003**	**2.8600e-003**						**8.9509**

3.7 Architectural Coating - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	4.5500e-003	3.8000e-003	0.0340	1.0000e-004	0.0115	7.0000e-005	0.0115	3.0400e-003	7.0000e-005	3.1100e-003						8.9331
Total	**4.5500e-003**	**3.8000e-003**	**0.0340**	**1.0000e-004**	**0.0115**	**7.0000e-005**	**0.0115**	**3.0400e-003**	**7.0000e-005**	**3.1100e-003**						**8.9331**

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	0.0971					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	7.1600e-003	0.0493	0.0635	1.0000e-004		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003						8.9509
Total	**0.1043**	**0.0493**	**0.0635**	**1.0000e-004**		**2.8600e-003**	**2.8600e-003**		**2.8600e-003**	**2.8600e-003**						**8.9509**

3.7 Architectural Coating - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	4.5500e-003	3.8000e-003	0.0340	1.0000e-004	0.0115	7.0000e-005	0.0115	3.0400e-003	7.0000e-005	3.1100e-003						8.9331
Total	**4.5500e-003**	**3.8000e-003**	**0.0340**	**1.0000e-004**	**0.0115**	**7.0000e-005**	**0.0115**	**3.0400e-003**	**7.0000e-005**	**3.1100e-003**						**8.9331**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3606					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003						33.2419
Total	**0.3855**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**						**33.2419**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0159	0.0127	0.1153	3.5000e-004	0.0426	2.6000e-004	0.0428	0.0113	2.4000e-004	0.0115						31.9340
Total	**0.0159**	**0.0127**	**0.1153**	**3.5000e-004**	**0.0426**	**2.6000e-004**	**0.0428**	**0.0113**	**2.4000e-004**	**0.0115**						**31.9340**

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	0.3606					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003						33.2419
Total	**0.3855**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**						**33.2419**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0159	0.0127	0.1153	3.5000e-004	0.0426	2.6000e-004	0.0428	0.0113	2.4000e-004	0.0115						31.9340
Total	**0.0159**	**0.0127**	**0.1153**	**3.5000e-004**	**0.0426**	**2.6000e-004**	**0.0428**	**0.0113**	**2.4000e-004**	**0.0115**						**31.9340**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0707					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	4.6100e-003	0.0311	0.0462	8.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003						6.5200
Total	**0.0754**	**0.0311**	**0.0462**	**8.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**						**6.5200**

3.7 Architectural Coating - 2024

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	2.9400e-003	2.2500e-003	0.0208	7.0000e-005	8.3500e-003	5.0000e-005	8.4000e-003	2.2200e-003	5.0000e-005	2.2600e-003						6.0202
Total	**2.9400e-003**	**2.2500e-003**	**0.0208**	**7.0000e-005**	**8.3500e-003**	**5.0000e-005**	**8.4000e-003**	**2.2200e-003**	**5.0000e-005**	**2.2600e-003**						**6.0202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0707					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	4.6100e-003	0.0311	0.0462	8.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003						6.5200
Total	**0.0754**	**0.0311**	**0.0462**	**8.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**						**6.5200**

3.7 Architectural Coating - 2024

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	2.9400e-003	2.2500e-003	0.0208	7.0000e-005	8.3500e-003	5.0000e-005	8.4000e-003	2.2200e-003	5.0000e-005	2.2600e-003						6.0202
Total	**2.9400e-003**	**2.2500e-003**	**0.0208**	**7.0000e-005**	**8.3500e-003**	**5.0000e-005**	**8.4000e-003**	**2.2200e-003**	**5.0000e-005**	**2.2600e-003**						**6.0202**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3748	1.4706	4.0951	0.0135	1.3701	0.0120	1.3821	0.3665	0.0112	0.3777						1,234.9543
Unmitigated	0.3896	1.5747	4.4626	0.0150	1.5428	0.0133	1.5560	0.4127	0.0124	0.4251						1,379.8049

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	644.16	699.60	593.12	1,638,767	1,455,405
Health Club	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	906.24	942.72	820.80	2,285,484	2,029,762
Apartments Mid Rise	76.00	73.04	67.28	188,918	167,780
Total	1,626.40	1,715.36	1,481.20	4,113,169	3,652,947

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Health Club	13.00	5.00	5.00	16.90	64.10	19.00	52	39	9
Other Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Health Club	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Other Asphalt Surfaces	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Parking Lot	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Single Family Housing	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098
Apartments Mid Rise	0.594251	0.027045	0.198417	0.112022	0.020557	0.005436	0.012656	0.019692	0.002295	0.001129	0.004655	0.000747	0.001098

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

- San Luis Obispo County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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						211.1492
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						215.1990
NaturalGas Mitigated	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						201.6751
NaturalGas Unmitigated	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						201.6751

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	897499	4.8400e-003	0.0414	0.0176	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003						48.1786
Apartments Mid Rise	69115.6	3.7000e-004	3.1800e-003	1.3600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004						3.7102
Health Club	59.8826	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						3.2100e-003
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	2.79025e+006	0.0151	0.1286	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104						149.7831
Total		**0.0203**	**0.1731**	**0.0737**	**1.1000e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**						**201.6751**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	897499	4.8400e-003	0.0414	0.0176	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003						48.1786
Apartments Mid Rise	69115.6	3.7000e-004	3.1800e-003	1.3600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004						3.7102
Health Club	59.8826	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						3.2100e-003
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	2.79025e+006	0.0151	0.1286	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104						149.7831
Total		**0.0203**	**0.1731**	**0.0737**	**1.1000e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**						**201.6751**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	382694				68.8954
Apartments Mid Rise	33026.8				5.9457
Health Club	18.7502				3.3800e-003
Other Asphalt Surfaces	0				0.0000
Parking Lot	2934.75				0.5283
Single Family Housing	776695				139.8262
Total					**215.1990**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	373819				67.2975
Apartments Mid Rise	32200				5.7969
Health Club	18.7502				3.3800e-003
Other Asphalt Surfaces	0				0.0000
Parking Lot	2934.75				0.5283
Single Family Housing	763901				137.5230
Total					**211.1492**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9601	0.0301	2.6138	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3769
Unmitigated	0.9601	0.0301	2.6138	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3769

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	0.2515					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.6299					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.0786	0.0301	2.6138	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3769
Total	**0.9601**	**0.0301**	**2.6138**	**1.4000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**						**4.3769**

6.2 Area by SubCategory

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	0.2515					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.6299					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.0786	0.0301	2.6138	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3769
Total	**0.9601**	**0.0301**	**2.6138**	**1.4000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**						**4.3769**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				28.6427
Unmitigated				34.5481

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	5.73355 / 3.61463				15.6671
Apartments Mid Rise	0.521232 / 0.328603				1.4243
Health Club	0.134255 / 0.0822853				0.3654
Other Asphalt Surfaces	0 / 0				0.0000
Parking Lot	0 / 0				0.0000
Single Family Housing	6.25479 / 3.94323				17.0913
Total					**34.5481**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.58684 / 3.61463				12.9892
Apartments Mid Rise	0.416986 / 0.328603				1.1808
Health Club	0.107404 / 0.0822853				0.3027
Other Asphalt Surfaces	0 / 0				0.0000
Parking Lot	0 / 0				0.0000
Single Family Housing	5.00383 / 3.94323				14.1700
Total					**28.6427**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				85.4178
Unmitigated				85.4178

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	40.48				20.3575
Apartments Mid Rise	3.68				1.8507
Health Club	12.94				6.5076
Other Asphalt Surfaces	0				0.0000
Parking Lot	0				0.0000
Single Family Housing	112.75				56.7022
Total					**85.4178**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	40.48				20.3575
Apartments Mid Rise	3.68				1.8507
Health Club	12.94				6.5076
Other Asphalt Surfaces	0				0.0000
Parking Lot	0				0.0000
Single Family Housing	112.75				56.7022
Total					**85.4178**

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

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	143.75	1000sqft	3.30	143,754.00	0
Parking Lot	8.38	1000sqft	0.20	8,385.00	0
Health Club	2.27	1000sqft	0.05	2.27	0
Apartments Low Rise	88.00	Dwelling Unit	1.20	52,340.00	252
Single Family Housing	96.00	Dwelling Unit	2.25	98,150.00	275
Apartments Mid Rise	8.00	Dwelling Unit	0.19	8,275.00	23

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	298.3	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factors adjusted to RPS standards for 2030

Land Use - sqft based on measurements from google earth

Construction Phase - based on construction info provided

Off-road Equipment - default equp

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default equip

Off-road Equipment - default eqip

Trips and VMT - default values

On-road Fugitive Dust - default values

Demolition - two one level approximately 1000sqft houses to be demolished

Grading - default

Architectural Coating - VOC to 50g/L except parking lot paint

Vehicle Trips - wkdy trips based on traffic report, weeked trips have equivilant % change based on default

Area Coating - still has 250 g/L assumption

Energy Use -

Construction Off-road Equipment Mitigation - equipment is Tier 3

Energy Mitigation -

Water Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	143,750.00	143,754.00
tblLandUse	LandUseSquareFeet	8,380.00	8,385.00
tblLandUse	LandUseSquareFeet	2,270.00	2.27
tblLandUse	LandUseSquareFeet	88,000.00	52,340.00
tblLandUse	LandUseSquareFeet	172,800.00	98,150.00
tblLandUse	LandUseSquareFeet	8,000.00	8,275.00
tblLandUse	LotAcreage	0.19	0.20
tblLandUse	LotAcreage	5.50	1.20
tblLandUse	LotAcreage	31.17	2.25
tblLandUse	LotAcreage	0.21	0.19
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	298.3
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2725	2.3424	2.3546	5.1100e-003	0.3147	0.1000	0.4147	0.1258	0.0936	0.2194						456.4903
2023	2.6033	0.6722	0.8369	1.7900e-003	0.0603	0.0276	0.0879	0.0162	0.0259	0.0421						160.1010
Maximum	**2.6033**	**2.3424**	**2.3546**	**5.1100e-003**	**0.3147**	**0.1000**	**0.4147**	**0.1258**	**0.0936**	**0.2194**						**456.4903**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2725	2.3424	2.3546	5.1100e-003	0.2190	0.1000	0.3190	0.0749	0.0936	0.1685						456.4900
2023	2.6033	0.6722	0.8369	1.7900e-003	0.0603	0.0276	0.0879	0.0162	0.0259	0.0421						160.1009
Maximum	**2.6033**	**2.3424**	**2.3546**	**5.1100e-003**	**0.2190**	**0.1000**	**0.3190**	**0.0749**	**0.0936**	**0.1685**						**456.4900**

	ROG	NOx	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**	**25.52**	**0.00**	**19.04**	**35.86**	**0.00**	**19.47**	**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	3-1-2022	5-31-2022	0.8744	0.8744
2	6-1-2022	8-31-2022	0.7426	0.7426
3	9-1-2022	11-30-2022	0.7374	0.7374
4	12-1-2022	2-28-2023	0.6845	0.6845
5	3-1-2023	5-31-2023	2.8482	2.8482
		Highest	2.8482	2.8482

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	0.9596	0.0301	2.6093	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3764
Energy	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						364.0774
Mobile	0.2859	1.1896	3.2201	0.0127	1.5027	9.2100e-003	1.5119	0.4017	8.5800e-003	0.4103						1,171.0539
Waste						0.0000	0.0000		0.0000	0.0000						85.4178
Water						0.0000	0.0000		0.0000	0.0000						30.2944
Total	**1.2658**	**1.3928**	**5.9031**	**0.0140**	**1.5027**	**0.0377**	**1.5404**	**0.4017**	**0.0371**	**0.4388**						**1,655.2200**

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	0.9596	0.0301	2.6093	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3764
Energy	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						361.0212
Mobile	0.2752	1.1225	2.9510	0.0114	1.3346	8.3300e-003	1.3429	0.3568	7.7600e-003	0.3645						1,048.8439
Waste						0.0000	0.0000		0.0000	0.0000						85.4178
Water						0.0000	0.0000		0.0000	0.0000						24.9934
Total	**1.2551**	**1.3257**	**5.6340**	**0.0126**	**1.3346**	**0.0368**	**1.3714**	**0.3568**	**0.0363**	**0.3930**						**1,524.6527**

	ROG	NOx	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	**0.85**	**4.82**	**4.56**	**9.53**	**11.19**	**2.33**	**10.97**	**11.19**	**2.21**	**10.43**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.89**

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	3/1/2022	3/28/2022	5	20	
2	Site Preparation	Site Preparation	3/29/2022	4/11/2022	5	10	
3	Grading	Grading	4/12/2022	5/9/2022	5	20	
4	Building Construction	Building Construction	5/10/2022	3/27/2023	5	230	
5	Paving	Paving	3/28/2023	4/24/2023	5	20	
6	Architectural Coating	Architectural Coating	4/25/2023	5/22/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 3.5

Residential Indoor: 321,499; Residential Outdoor: 107,166; Non-Residential Indoor: 3; Non-Residential Outdoor: 1; Striped Parking Area: 9,128 (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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	9.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	168.00	45.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0200e-003	0.0000	1.0200e-003	1.5000e-004	0.0000	1.5000e-004						0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116						34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**1.0200e-003**	**0.0124**	**0.0135**	**1.5000e-004**	**0.0116**	**0.0117**						**34.2289**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.2100e-003	2.9000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005						0.3387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	5.7000e-004	4.8000e-004	4.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004						1.1260
Total	**6.0000e-004**	**1.6900e-003**	**4.5700e-003**	**1.0000e-005**	**1.5200e-003**	**1.0000e-005**	**1.5300e-003**	**4.0000e-004**	**1.0000e-005**	**4.2000e-004**						**1.4647**

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					4.0000e-004	0.0000	4.0000e-004	6.0000e-005	0.0000	6.0000e-005						0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116						34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**4.0000e-004**	**0.0124**	**0.0128**	**6.0000e-005**	**0.0116**	**0.0116**						**34.2289**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.2100e-003	2.9000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005						0.3387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	5.7000e-004	4.8000e-004	4.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004						1.1260
Total	**6.0000e-004**	**1.6900e-003**	**4.5700e-003**	**1.0000e-005**	**1.5200e-003**	**1.0000e-005**	**1.5300e-003**	**4.0000e-004**	**1.0000e-005**	**4.2000e-004**						**1.4647**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497						0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003						16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**						**16.8549**

3.3 Site Preparation - 2022

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
Vendor	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	2.9000e-004	2.5700e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	0.0000	2.4000e-004						0.6756
Total	**3.4000e-004**	**2.9000e-004**	**2.5700e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**						**0.6756**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194						0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003						16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0352**	**8.0600e-003**	**0.0433**	**0.0194**	**7.4200e-003**	**0.0268**						**16.8549**

3.3 Site Preparation - 2022

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
Vendor	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	2.9000e-004	2.5700e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	0.0000	2.4000e-004						0.6756
Total	**3.4000e-004**	**2.9000e-004**	**2.5700e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**						**0.6756**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337						0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003						26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0655**	**9.4100e-003**	**0.0749**	**0.0337**	**8.6600e-003**	**0.0423**						**26.2654**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	5.7000e-004	4.8000e-004	4.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004						1.1260
Total	**5.7000e-004**	**4.8000e-004**	**4.2800e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**						**1.1260**

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					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131						0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003						26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0256**	**9.4100e-003**	**0.0350**	**0.0131**	**8.6600e-003**	**0.0218**						**26.2654**

3.4 Grading - 2022

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	5.7000e-004	4.8000e-004	4.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004						1.1260
Total	**5.7000e-004**	**4.8000e-004**	**4.2800e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**						**1.1260**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1442	1.3195	1.3827	2.2800e-003		0.0684	0.0684		0.0643	0.0643						196.9806
Total	**0.1442**	**1.3195**	**1.3827**	**2.2800e-003**		**0.0684**	**0.0684**		**0.0643**	**0.0643**						**196.9806**

3.5 Building Construction - 2022

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
Vendor	0.0107	0.3439	0.0979	7.5000e-004	0.0173	9.1000e-004	0.0182	4.9900e-003	8.7000e-004	5.8600e-003						72.3277
Worker	0.0543	0.0454	0.4054	1.1800e-003	0.1367	8.4000e-004	0.1375	0.0363	7.8000e-004	0.0371						106.5664
Total	**0.0650**	**0.3893**	**0.5033**	**1.9300e-003**	**0.1540**	**1.7500e-003**	**0.1557**	**0.0413**	**1.6500e-003**	**0.0430**						**178.8941**

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	0.1442	1.3195	1.3827	2.2800e-003		0.0684	0.0684		0.0643	0.0643						196.9804
Total	**0.1442**	**1.3195**	**1.3827**	**2.2800e-003**		**0.0684**	**0.0684**		**0.0643**	**0.0643**						**196.9804**

3.5 Building Construction - 2022

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
Vendor	0.0107	0.3439	0.0979	7.5000e-004	0.0173	9.1000e-004	0.0182	4.9900e-003	8.7000e-004	5.8600e-003						72.3277
Worker	0.0543	0.0454	0.4054	1.1800e-003	0.1367	8.4000e-004	0.1375	0.0363	7.8000e-004	0.0371						106.5664
Total	**0.0650**	**0.3893**	**0.5033**	**1.9300e-003**	**0.1540**	**1.7500e-003**	**0.1557**	**0.0413**	**1.6500e-003**	**0.0430**						**178.8941**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0480	0.4387	0.4954	8.2000e-004		0.0213	0.0213		0.0201	0.0201						71.1209
Total	**0.0480**	**0.4387**	**0.4954**	**8.2000e-004**		**0.0213**	**0.0213**		**0.0201**	**0.0201**						**71.1209**

3.5 Building Construction - 2023

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
Vendor	2.9600e-003	0.1024	0.0311	2.6000e-004	6.2400e-003	1.5000e-004	6.3900e-003	1.8000e-003	1.5000e-004	1.9500e-003						25.6738
Worker	0.0184	0.0147	0.1336	4.1000e-004	0.0493	3.0000e-004	0.0496	0.0131	2.7000e-004	0.0134						37.0203
Total	**0.0214**	**0.1171**	**0.1647**	**6.7000e-004**	**0.0556**	**4.5000e-004**	**0.0560**	**0.0149**	**4.2000e-004**	**0.0153**						**62.6940**

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	0.0480	0.4387	0.4954	8.2000e-004		0.0213	0.0213		0.0201	0.0201						71.1208
Total	**0.0480**	**0.4387**	**0.4954**	**8.2000e-004**		**0.0213**	**0.0213**		**0.0201**	**0.0201**						**71.1208**

3.5 Building Construction - 2023

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
Vendor	2.9600e-003	0.1024	0.0311	2.6000e-004	6.2400e-003	1.5000e-004	6.3900e-003	1.8000e-003	1.5000e-004	1.9500e-003						25.6738
Worker	0.0184	0.0147	0.1336	4.1000e-004	0.0493	3.0000e-004	0.0496	0.0131	2.7000e-004	0.0134						37.0203
Total	**0.0214**	**0.1171**	**0.1647**	**6.7000e-004**	**0.0556**	**4.5000e-004**	**0.0560**	**0.0149**	**4.2000e-004**	**0.0153**						**62.6940**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003						20.1888
Paving	4.5900e-003					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**0.0149**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**						**20.1888**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	5.4000e-004	4.3000e-004	3.9100e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004						1.0837
Total	**5.4000e-004**	**4.3000e-004**	**3.9100e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**						**1.0837**

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003						20.1888
Paving	4.5900e-003					0.0000	0.0000		0.0000	0.0000						0.0000
Total	**0.0149**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**						**20.1888**

3.6 Paving - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	5.4000e-004	4.3000e-004	3.9100e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004						1.0837
Total	**5.4000e-004**	**4.3000e-004**	**3.9100e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**						**1.0837**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.5153					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004						2.5571
Total	**2.5173**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**						**2.5571**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.2200e-003	9.8000e-004	8.8700e-003	3.0000e-005	3.2700e-003	2.0000e-005	3.2900e-003	8.7000e-004	2.0000e-005	8.9000e-004						2.4565
Total	**1.2200e-003**	**9.8000e-004**	**8.8700e-003**	**3.0000e-005**	**3.2700e-003**	**2.0000e-005**	**3.2900e-003**	**8.7000e-004**	**2.0000e-005**	**8.9000e-004**						**2.4565**

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	2.5153					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004						2.5571
Total	**2.5173**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**						**2.5571**

3.7 Architectural Coating - 2023

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	1.2200e-003	9.8000e-004	8.8700e-003	3.0000e-005	3.2700e-003	2.0000e-005	3.2900e-003	8.7000e-004	2.0000e-005	8.9000e-004						2.4565
Total	**1.2200e-003**	**9.8000e-004**	**8.8700e-003**	**3.0000e-005**	**3.2700e-003**	**2.0000e-005**	**3.2900e-003**	**8.7000e-004**	**2.0000e-005**	**8.9000e-004**						**2.4565**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2752	1.1225	2.9510	0.0114	1.3346	8.3300e-003	1.3429	0.3568	7.7600e-003	0.3645						1,048.8439
Unmitigated	0.2859	1.1896	3.2201	0.0127	1.5027	9.2100e-003	1.5119	0.4017	8.5800e-003	0.4103						1,171.0539

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	579.92	630.08	534.16	1,475,497	1,310,404
Health Club	74.75	47.37	60.68	98,496	87,476
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	913.92	951.36	827.52	2,305,004	2,047,097
Apartments Mid Rise	53.20	51.12	46.88	132,161	117,373
Total	1,621.79	1,679.93	1,469.24	4,011,158	3,562,350

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Health Club	13.00	5.00	5.00	16.90	64.10	19.00	52	39	9
Other Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.610645	0.025081	0.199254	0.104456	0.014638	0.004440	0.012550	0.019914	0.002247	0.001059	0.004248	0.000708	0.000759
Health Club	0.610645	0.025081	0.199254	0.104456	0.014638	0.004440	0.012550	0.019914	0.002247	0.001059	0.004248	0.000708	0.000759
Other Asphalt Surfaces	0.610645	0.025081	0.199254	0.104456	0.014638	0.004440	0.012550	0.019914	0.002247	0.001059	0.004248	0.000708	0.000759
Parking Lot	0.610645	0.025081	0.199254	0.104456	0.014638	0.004440	0.012550	0.019914	0.002247	0.001059	0.004248	0.000708	0.000759
Single Family Housing	0.610645	0.025081	0.199254	0.104456	0.014638	0.004440	0.012550	0.019914	0.002247	0.001059	0.004248	0.000708	0.000759
Apartments Mid Rise	0.610645	0.025081	0.199254	0.104456	0.014638	0.004440	0.012550	0.019914	0.002247	0.001059	0.004248	0.000708	0.000759

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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						159.3461
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						162.4023
NaturalGas Mitigated	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						201.6751
NaturalGas Unmitigated	0.0203	0.1731	0.0737	1.1000e-003		0.0140	0.0140		0.0140	0.0140						201.6751

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	897499	4.8400e-003	0.0414	0.0176	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003						48.1786
Apartments Mid Rise	69115.6	3.7000e-004	3.1800e-003	1.3600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004						3.7102
Health Club	59.8826	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						3.2100e-003
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	2.79025e+006	0.0151	0.1286	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104						149.7831
Total		**0.0203**	**0.1731**	**0.0737**	**1.1000e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**						**201.6751**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	897499	4.8400e-003	0.0414	0.0176	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003						48.1786
Apartments Mid Rise	69115.6	3.7000e-004	3.1800e-003	1.3600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004						3.7102
Health Club	59.8826	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						3.2100e-003
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Single Family Housing	2.79025e+006	0.0151	0.1286	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104						149.7831
Total		**0.0203**	**0.1731**	**0.0737**	**1.1000e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**						**201.6751**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	382694				51.9927
Apartments Mid Rise	33026.8				4.4870
Health Club	18.7502				2.5500e-003
Other Asphalt Surfaces	0				0.0000
Parking Lot	2934.75				0.3987
Single Family Housing	776695				105.5214
Total					**162.4023**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	373819				50.7868
Apartments Mid Rise	32200				4.3747
Health Club	18.7502				2.5500e-003
Other Asphalt Surfaces	0				0.0000
Parking Lot	2934.75				0.3987
Single Family Housing	763901				103.7833
Total					**159.3461**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9596	0.0301	2.6093	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3764
Unmitigated	0.9596	0.0301	2.6093	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3764

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	0.2515					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.6299					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.0782	0.0301	2.6093	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3764
Total	**0.9596**	**0.0301**	**2.6093**	**1.4000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**						**4.3764**

6.2 Area by SubCategory

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	0.2515					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.6299					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.0782	0.0301	2.6093	1.4000e-004		0.0145	0.0145		0.0145	0.0145						4.3764
Total	**0.9596**	**0.0301**	**2.6093**	**1.4000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**						**4.3764**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				24.9934
Unmitigated				30.2944

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	5.73355 / 3.61463				13.7380
Apartments Mid Rise	0.521232 / 0.328603				1.2489
Health Club	0.134255 / 0.0822853				0.3206
Other Asphalt Surfaces	0 / 0				0.0000
Parking Lot	0 / 0				0.0000
Single Family Housing	6.25479 / 3.94323				14.9869
Total					**30.2944**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.58684 / 3.61463				11.3342
Apartments Mid Rise	0.416986 / 0.328603				1.0304
Health Club	0.107404 / 0.0822853				0.2643
Other Asphalt Surfaces	0 / 0				0.0000
Parking Lot	0 / 0				0.0000
Single Family Housing	5.00383 / 3.94323				12.3646
Total					**24.9934**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				85.4178
Unmitigated				85.4178

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	40.48				20.3575
Apartments Mid Rise	3.68				1.8507
Health Club	12.94				6.5076
Other Asphalt Surfaces	0				0.0000
Parking Lot	0				0.0000
Single Family Housing	112.75				56.7022
Total					**85.4178**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	40.48				20.3575
Apartments Mid Rise	3.68				1.8507
Health Club	12.94				6.5076
Other Asphalt Surfaces	0				0.0000
Parking Lot	0				0.0000
Single Family Housing	112.75				56.7022
Total					**85.4178**

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