# Rotten Robbie #11 Project

## Air Quality and Greenhouse Gas Assessment

San José, California

Prepared For:
Rotten Robbie Corporation
955 Martin Avenue
Santa Clara, CA 95050
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ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ECORP Consulting, Inc. has assisted public and private land owners with environmental regulation compliance since 1987. We offer full service capability, from initial baseline environmental studies through environmental planning review, permitting negotiation, liaison to obtain legal agreements, mitigation design, construction monitoring, and compliance reporting.

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Attachment A – CalEEMod Output File for Air Quality & Greenhouse Gas Emissions

# 1.0 INTRODUCTION

This report documents the results of an assessment of both air quality and greenhouse gas emissions (GHG) completed for the Rotten Robbie #11 Project (Project), which includes the demolition of an existing convenience store and replacement with a new, larger store, at a gasoline dispensing facility in San José. This assessment was prepared using methodologies and assumptions recommended in the rules and regulations of the Bay Area Air Quality Management District (BAAQMD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations. The purpose of this assessment is to estimate Project-generated criteria air pollutants and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment.

## 1.1 Project Location and Description

The Project Site is located in the City of San José, located in north-central Santa Clara County (see **Figure 1**). The Project Site is an approximately 0.6-acre site located at the northern corner of the Story Road / S. Jackson Avenue intersection. The irregular shaped site is generally bound by residential neighborhoods to the east, north, northwest and northeast, and commercial uses to the south and west with residential neighborhoods beyond (see **Figure 2**). The Project site currently contains an operational gasoline dispensing station with 12 fueling positions, underground gasoline storage tanks, and a 1,300-square foot convenience store.

The Rotten Robbie Corporation proposes to renovate and reconfigure the existing operation on-site with the demolition of the existing convenience store, currently located at the central portion of the site (see **Figure 3**). The Project would replace the demolished store building with a new 3,200-square foot store building located at the northwestern corner of the Project site (see **Figure 4**). Eleven parking spaces would span the front of the building and three existing driveway entrances would be demolished and replaced. The existing fuel island and underground tanks would remain.

The Project site has a City of San José General Plan designation of Neighborhood/Community Commercial (NCC). The General Plan identifies the NCC designation as a land use that supports a very broad range of commercial activity, including commercial uses that serve the communities in neighboring areas, such as neighborhood serving retail and services and commercial/professional office development. General office uses, hospitals and private community gathering facilities are also allowed in this designation (San José 2011). The Project includes a conforming rezoning from CP - Commercial Pedestrian Zoning District to CN - Commercial Neighborhood Zoning District.

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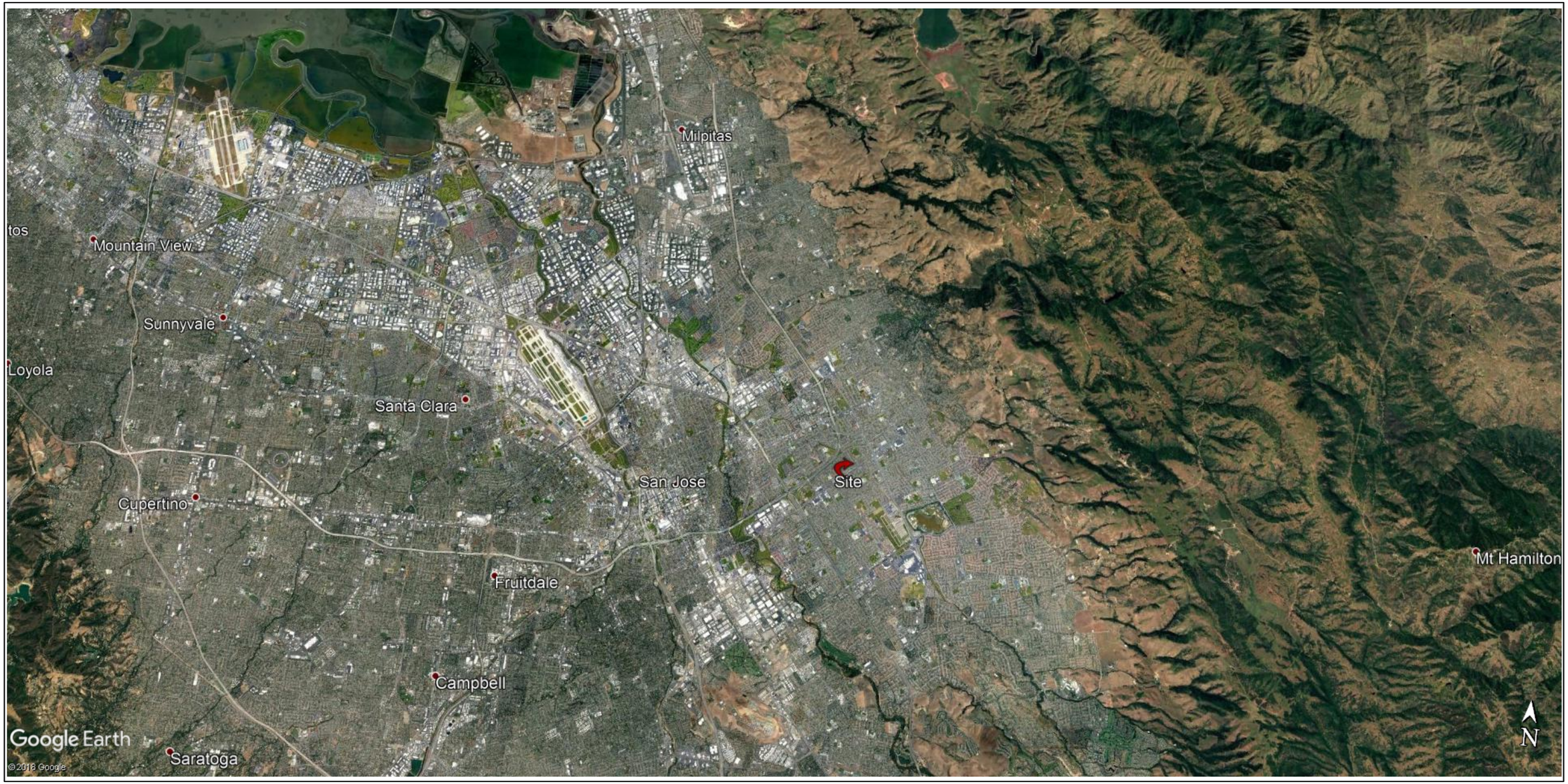


Map Date: *11/15/2018*
Photo (or Base) Source: *Google Earth 2018*

**Figure 1 Vicinity Map**

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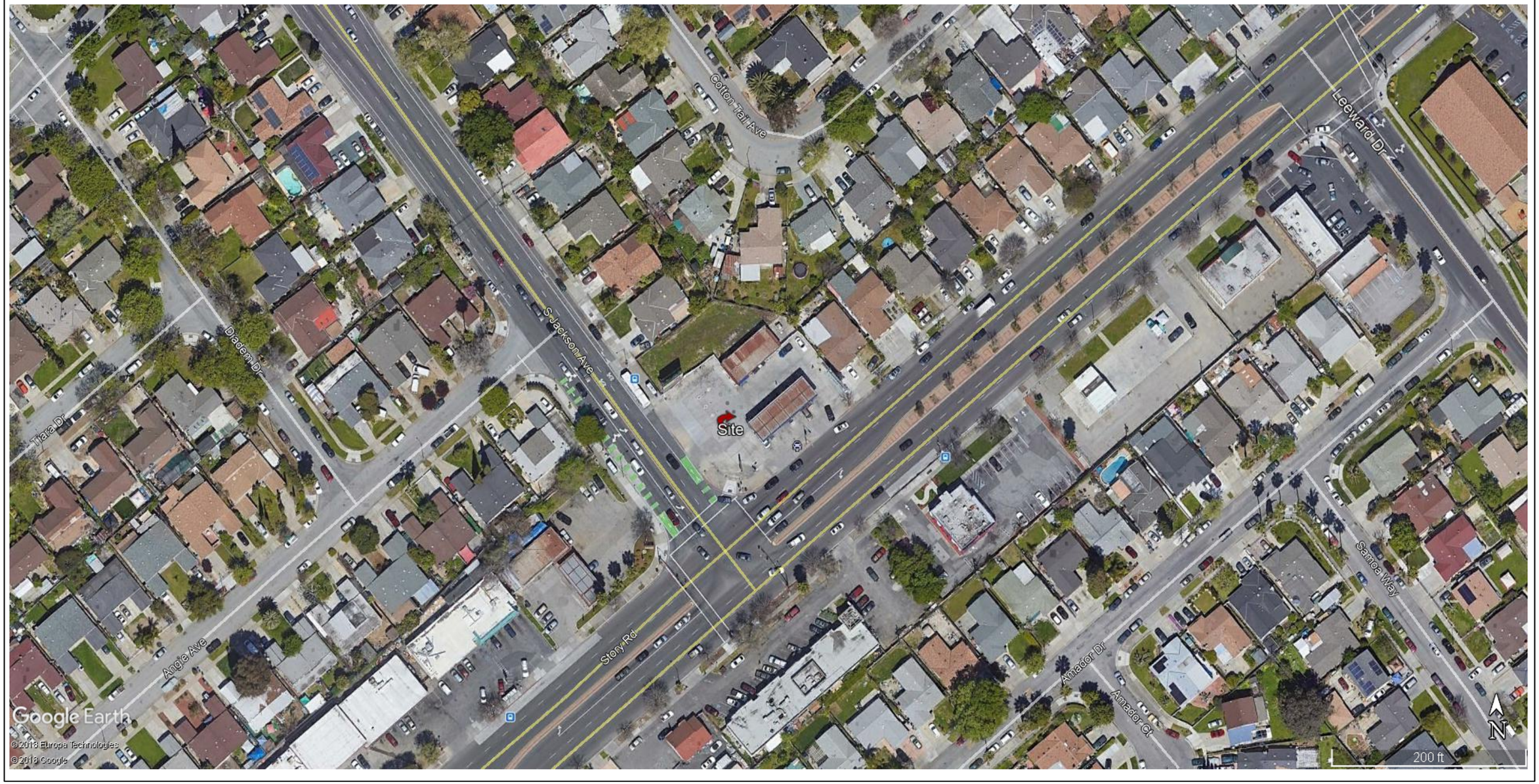


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**Figure 2 Project Site**

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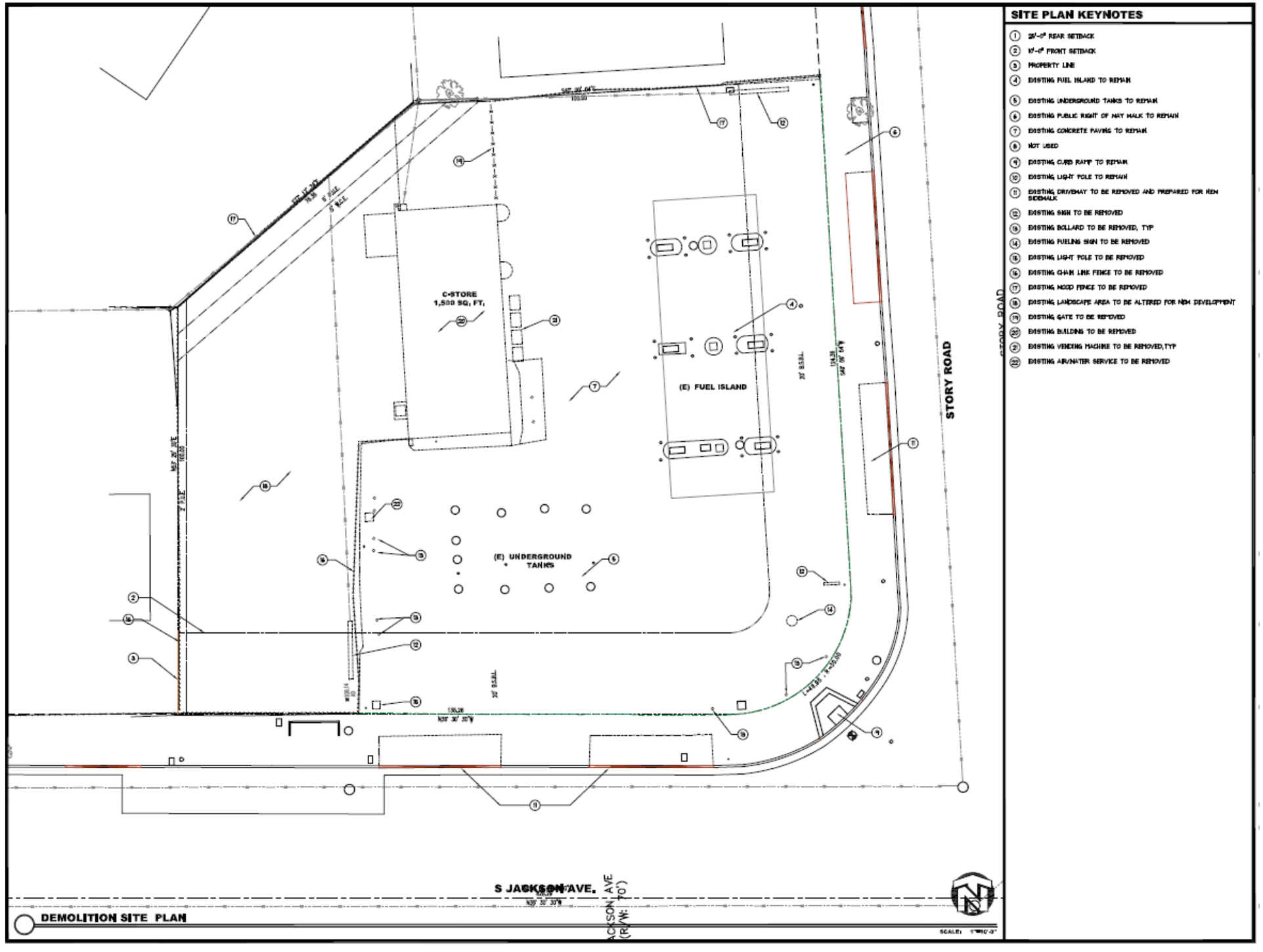


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Photo (or Base) Source: *K12 Architects Inc.*

**Figure 3 Demolition Plan**

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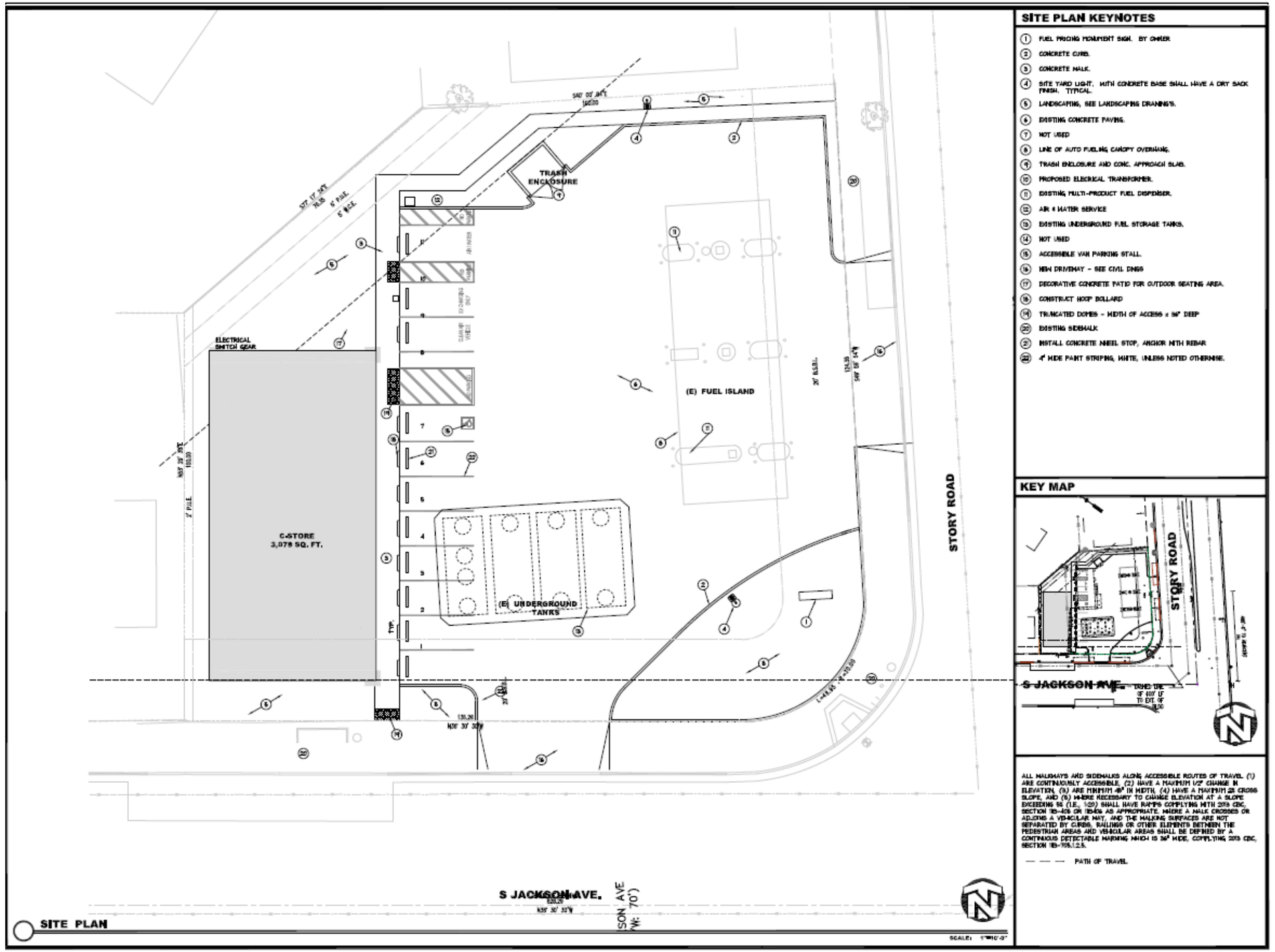


Map Date: *11/15/2018*
Photo (or Base) Source: *K12 Architects Inc.*

**Figure 4 Project Site Plan**

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# 2.0 AIR QUALITY

## 2.1 Air Quality Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the San Francisco Bay Area Air Basin (SFBAAB), which encompasses the Project site, pursuant to the regulatory authority of the Bay Area Air Quality Management District (BAAQMD).

***San Francisco Bay Area Air Basin***

San José is in the Santa Clara Valley climatological subregion of the SFBAAB. The northwest–southeast-oriented Santa Clara Valley is bounded by the Santa Cruz Mountains to the west, the Diablo Range to the east, the San Francisco Bay to the north, and the convergence of the Gabilan Range and the Diablo Range to the south. Winter temperatures are mild, except for very cool but generally frostless mornings. At the northern end of the Santa Clara Valley, San José Airport reports mean maximum temperatures ranging from the high 70s to the low 80s during the summer and from the high 50s to the low 60s during the winter, and mean minimum temperatures ranging from the high 50s in the summer to the low 40s in the winter. Farther inland, where the moderating effect of the bay is not as strong, temperature extremes are greater.

The wind patterns in the valley are influenced greatly by the terrain, resulting in a prevailing flow roughly parallel to the valley's northwest–southeast axis with a north-northwesterly ocean breeze that flows up the valley in the afternoon and early evening and a light south-southeasterly flow during the late evening and early morning. In the summer, a convergence zone is sometimes observed in the southern end of the valley between Gilroy and Morgan Hill when air flowing from the Monterey Bay through the Pajaro Gap is channeled northward into the south end of the Santa Clara Valley and meets with the prevailing north-northwesterly winds. Wind speeds are greatest in the spring and summer; nighttime and early morning hours have light winds and are frequently calm in all seasons, while summer afternoons and evenings can be windy.

Air pollution potential in the Santa Clara Valley is high. The valley has a large population and the largest complex of mobile sources in the Bay Area, making it a major source of carbon monoxide, particulate, and photochemical air pollution. In addition, photochemical pollution precursors from San Francisco, San Mateo, and Alameda counties can be carried by the prevailing winds to the Santa Clara Valley. Geographically, the valley tends to channel pollutants to the southeast because of its northwest–southeast orientation and its narrowing to the southeast.

Meteorological factors also have an effect on emissions levels. On summer days, pollutants can be recirculated by the prevailing northwesterly winds in the afternoon and by the light flow in the late evening and early morning. This recirculation significantly increases the impact of emissions. Inversions, created by warm, stable air aloft that limits the vertical dispersion of air pollutants, increase the emissions impact in all seasons. During days in the late fall and winter, clear, calm, and cold conditions associated with a strong surface-based temperature inversion tend to prevail, which can result in high levels of particulate and carbon monoxide. Though they can be found during all seasons in the Bay Area, inversions

are particularly prevalent in the summer months when they are present about 90 percent of the time, both in the morning and in the afternoon.

Pollution Potential Related to Emissions

Although air pollution potential is strongly influenced by climate and topography, the air pollution that occurs in a location also depends on the amount of air pollutant emissions in the surrounding area or those that have been transported from more distant places. Air pollutant emissions generally are highest in areas that have high population densities, high motor vehicle use, and/or industrialization. Contaminants created by photochemical processes in the atmosphere, such as ozone, may result in high concentrations many miles downwind from the sources of their precursor chemicals.

### *Criteria Air Pollutants*

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone ($O_3$), coarse particulate matter ($PM_{10}$), and fine particulate matter ($PM_{2.5}$) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide ($NO_2$), and sulfur dioxide ($SO_2$) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in **Table 2-1**.

**Table 2-1. Criteria Air Pollutants- Summary of Common Sources and Effects**

| Pollutant | Major Man-Made Sources | Human Health & Welfare Effects |
|---|---|---|
| CO | An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust. | 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. |
| $NO_2$ | A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources. | Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere. |
| $O_3$ | Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills. | 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. |
| $PM_{10}$ & $PM_{2.5}$ | Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others. | 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). |
| $SO_2$ | A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives. | Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility. |

*Source: CAPCOA 2013*

### *Toxic Air Contaminants*

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

Out of the toxic compounds emitted from gasoline stations, benzene, ethylbenzene, and naphthalene have cancer toxicity values. However, benzene is the TAC which drives the risk, accounting for 87 percent of cancer risk from gasoline vapors (SCAQMD 2015). Furthermore, benzene constitutes more than three to four times the weight of gasoline than ethylbenzene and naphthalene, respectively (SCAQMD 2015). Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness.

Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes blood disorders because benzene specifically affects bone marrow, which produces blood cells. Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.

### *Ambient Air Quality*

Ambient air quality at the Project site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains over 60 monitoring stations throughout California. The San Jose– E. Jackson Street air quality monitoring station (158 E. Jackson Street), located approximately 3.4 miles west of the development site monitors ambient concentrations of $O_3$, $PM_{2.5}$ and $PM_{10}$, the three primary pollutants effecting the Project area. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the development area.

**Table 2-2** summarizes the published data concerning $O_3$, $PM_{2.5}$, $PM_{10}$ since 2015 for each year that the monitoring data is provided.

| Table 2-2. Summary of Ambient Air Quality Data | | | |
|---|---|---|---|
| **Pollutant Standards** | **2015** | **2016** | **2017** |
| **$O_3$** | | | |
| Max 1-hour concentration (ppm) | 0.094 | 0.087 | 0.121 |
| Max 8-hour concentration (ppm) (state/federal) | 0.081 / 0.081 | 0.067 / 0.066 | 0.099 / 0.098 |
| Number of days above 1-hour standard (state/federal) | 0 / 0 | 0 / 0 | 3 / 0 |
| Number of days above 8-hour standard (state/federal) | 2 / 2 | 0 / 0 | 4 / 4 |
| **$PM_{10}$** | | | |
| Max 24-hour concentration (µg/m3) (state/federal) | 58.0 / 58.8 | 41.0 / 40.0 | 69.8 / 69.4 |
| Number of days above 24-hour standard (state/federal) | 3.0 / 0.0 | 0.0 / 0.0 | 19.2 / 0.0 |
| **$PM_{2.5}$** | | | |
| Max 24-hour concentration (µg/m3) (state/federal) | 49.4 / 49.4 | 22.7 / 22.6 | 49.7 / 49.7 |
| Number of days above federal 24-hour standard | 2.1 | 0.0 | 6.0 |

*Source: CARB 2017a*
*$\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million*
** = Insufficient data available*

The U.S. Environment Protection Agency (EPA) and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) are not to be exceeded more than once per year in order for an area to achieve Federal attainment status (other than the pollutants, $O_3$, $PM_{10}$, $PM_{2.5}$, and those based on annual averages or arithmetic mean). The NAAQS for $O_3$, $PM_{10}$, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period in order for an area to achieve state-level attainment status. The attainment status for the SFBAAB is included in **Table 2-3.**

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment

area for the federal $O_3$ and $PM_{2.5}$ standards, and is also a nonattainment area for the state standards for $O_3$, $PM_{10}$, and $PM_{2.5}$ standards (CARB 2017b).

**Table 2-3. Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin**

| Pollutant | State Designation | Federal Designation |
|---|---|---|
| $O_3$ | Nonattainment | Nonattainment |
| $PM_{10}$ | Nonattainment | Unclassified |
| $PM_{2.5}$ | Nonattainment | Nonattainment |
| CO | Attainment | Unclassified/Attainment |
| $NO_2$ | Attainment | Unclassified/Attainment |
| $SO_2$ | Attainment | Attainment |

*Source: CARB 2017b*

## 2.2 Regulatory Framework

### *Federal*

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the EPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that carbon dioxide is an air pollutant covered by the CAA; however, no NAAQS have been established for carbon dioxide.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The EPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. **Table 2-3** lists the federal attainment status of the SFBAAB for the criteria pollutants.

### *State*

California Clean Air Act

The California Clean Air Act (CCAA) allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California State Implementation Plan

The federal Clean Air Act (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the national ambient air quality standards revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the Clean Air Act. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements (air quality attainment plans) and submit them to CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register. The BAAQMD is responsible for preparing plans (SIP elements) to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares ozone attainment plans for the national ozone standard and clean air plans for the California standard, both in coordination with the Metropolitan Transportation Commission and the Association of Bay Area Governments. With respect to applicable air quality attainment plans, the BAAQMD prepared the Bay Area 2017 Clean Air Plan. The 2017 Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Clean Air Plan describes how BAAQMD will continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those greenhouse gas emissions reduction targets.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air

contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

### *Local*

Bay Area Air Quality Management District

The BAAQMD attains and maintains air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The BAAQMD's clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The BAAQMD also inspects stationary sources of air pollution, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the federal Clean Air Act, the Clean Air Act Amendments, and the California Clean Air Act.

*Rules and Regulations*

The BAAQMD develops regulations to improve air quality and protect the health and welfare of Bay Area residents and their environment. BAAQMD rules and regulations most applicable to the Project area include, but are not limited to, the following:

- ***Regulation 2, Rule 2: New Source Review.*** Requires any new source resulting in an increase of any criteria pollutant to be evaluated for adherence to best available control technology.

- ***Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.*** Requires all new and modified sources of TAC to be evaluated for emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced.

- ***Regulation 7: Odorous Substances.*** Establishes general limitations on odorous substances and specific emission limitations on certain odorous compounds.

- ***Regulation 8, Rule 3: Architectural Coatings.*** Limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the district.

- ***Regulation 8, Rule 7: Gasoline Dispensing Facilities.*** The purpose of this Rule is to limit emissions of organic compounds from gasoline dispensing facilities by prohibits the transfer or allowance of the transfer of gasoline into stationary tanks at a gasoline-dispensing facility unless a CARB-certified Phase I vapor recovery system is used; and further prohibits the transfer or allowance of the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline-dispensing facility unless a CARB-certified Phase II vapor recovery system is used during each transfer.

- ***Regulation 8, Rule 15: Emulsified and Liquid Asphalts.*** Limits the emissions of volatile organic compounds caused by the use of emulsified and liquid asphalt in paving materials and paving and maintenance operations.
- ***Regulation 14: Mobile Source Emissions Reduction Measures.*** Includes measures to reduce emissions of air pollutants from mobile sources by reducing motor vehicle use and/or promoting the use of clean fuels and low-emission vehicles.

The above list includes rules and regulations most applicable to the proposed development of the Project. Additional rules and regulations may apply, depending on the sources proposed and the activities conducted.

*BAAQMD Construction Mitigation Measures*

The BAAQMD recommends quantifying a proposed project's construction-generated emissions by implementing the Basic Construction Mitigation Measures as mitigation for dust and exhaust construction impacts in California Environmental Quality Act (CEQA) compliance documentation. If additional construction measures are required to reduce construction-generated emissions, the Additional Construction Mitigation Measures should then be applied. **Table 2-4** identifies the Basic and Additional Construction Mitigation Measures. In addition, all projects must implement any applicable air toxic control measures. For example, projects that have the potential to disturb asbestos (from soil or building materials) must comply with all the requirements of CARB's air toxic control measures for construction, grading, quarrying, and surface mining operations.

| Table 2-4. BAAQMD Basic and Additional Construction Mitigation Measures |
|---|
| **BAAQMD Basic Construction Mitigation Measures** |
| All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. |
| All haul trucks transporting soil, sand, or other loose material off-site shall be covered. |
| All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. |
| All vehicle speeds on unpaved roads shall be limited to 15 mph. |
| All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. |
| Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. |
| All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. |
| Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations. |
| **BAAQMD Additional Construction Mitigation Measures** |
| All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. |
| All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. |
| Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. |
| Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. |
| The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the number of disturbed surfaces at any one time. |
| All trucks and equipment, including their tires, shall be washed off prior to leaving the site. |
| Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. |
| Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. |
| Minimizing the idling time of diesel-powered construction equipment to 2 minutes. |
| The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, |
| Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). |
| Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. |
| Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines. |

*Source: BAAQMD 2017a*

## 2.3 Air Quality Emissions Impact Assessment

***Thresholds of Significance***

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would:

1) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

2) Conflict with or obstruct implementation of any applicable air quality plan.

3) Expose sensitive receptors to substantial pollutant concentrations.

4) Create objectionable odors affecting a substantial number of people.

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

BAAQMD Thresholds

The significance criteria established by the applicable air quality management or air pollution control district (BAAQMD) may be relied upon to make the above determinations. According to the BAAQMD, an air quality impact is considered significant if the proposed Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The BAAQMD has established thresholds of significance for air quality for construction and operational activities of land use development projects such as that proposed, as shown in **Table 2-5.**

**Table 2-5. BAAQMD Significance Thresholds**

| Air Pollutant | Construction Activities | Operations | |
|---|---|---|---|
| Reactive Organic Gases (ROG) | 54 pounds/day | 54 pounds/day | 10 tons/year |
| Nitrogen Oxides ($NO_x$) | 54 pounds/day | 54 pounds/day | 10 tons/year |
| Coarse Particulates ($PM_{10}$) | 82 pounds/day (exhaust $PM_{10}$) | 82 pounds/day | 15 tons/year |
| Fine Particulates ($PM_{2.5}$) | 54 pounds/day (exhaust $PM_{2.5}$) | 54 pounds/day | 10 tons/year |
| Fugitive Dust Particulate Matter | BAAQMD Best Management Practices | None | None |
| Carbon Monoxide (CO) | None | None | None |
| Sulfur Oxides ($SO_x$) | None | None | None |

*Source: BAAQMD 2017a*

*CO Hotspot Analysis*

In addition to the significance thresholds listed above, the Project would be subject to the ambient air quality standards. These are addressed though an analysis of localized CO impacts. The California 1-hour and 8-hour carbon monoxide standards are:

- 1-hour = 20 parts per million
- 8-hour = 9 parts per million

The significance of localized impacts depends on whether ambient CO levels in the vicinity of the Project site are above state and federal carbon monoxide standards. CO concentrations in the SFBAAB no longer exceed the state ambient air quality standards (CAAQS) or national ambient air quality standards (NAAQS) criteria, and the air basin has been designated as attainment under the 1-hour and 8-hour standards.

*Toxic Air Contaminant Thresholds*

In addition to the above thresholds relating to criteria air pollutants and CO hot spots, this report evaluates the Project's impacts with respect to TACs. The BAAQMD regulates levels of air toxics through a permitting process that covers both construction and operation. If emissions of TACs exceed an excess cancer risk level of more than 10 in one million or a non-cancer hazard index greater than 1.0, the Project would result in a significant impact.

### *Methodology*

Air quality impacts were assessed in accordance with methodologies recommended by CARB and the BAAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were primarily calculated using CalEEMod model defaults. Operational air pollutant emissions were based on the Project site plans and automobile trip rates identified in the Local Transportation Analysis (Kimley Horn 2020) prepared for the Project.

For the purposes of this analysis, projected emissions associated with proposed operations are compared to the existing baseline, which includes an existing gasoline dispensing station and 1,300-square foot convenience store.

***Impact Analysis***

## ***PROJECT CONSTRUCTION-GENERATED CRITERIA AIR QUALITY EMISSIONS***

### ***Construction Significance Analysis***

Construction-generated emissions are temporary and short term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through the proposed demolition activities and construction of the proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive particulate matter emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Construction of the Project would commence with demolition of the existing 1,300-square foot convenience store, as well as three driveway entrances. It is estimated that the demolition of this building and existing driveways on-site will result in the hauling of 104 tons of demolished material off-site. Construction-generated emissions associated the proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See **Attachment A** for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the proposed Project are summarized in **Table 2-6**. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

| Table 2-6. Construction-Related Criteria Air Pollutant Emissions | | | | | | |
|---|---|---|---|---|---|---|
| **Construction Year** | **Pollutant (pounds per day)** | | | | | |
| | **ROG** | **$NO_X$** | **Exhaust $PM_{10}$** | **Exhaust $PM_{2.5}$** | **Fugitive Dust $PM_{10}$** | **Fugitive Dust $PM_{2.5}$** |
| Project Construction | 2.66 | 19.80 | 1.17 | 1.09 | 0.39 | 0.20 |
| *BAAQMD Significance Threshold* | *54 pounds/day* | *54 pounds/day* | *82 pounds/day* | *54 pounds/day* | *Basic Construction Mitigation Measures* | *Basic Construction Mitigation Measures* |
| **Exceed AQMD Threshold?** | **No** | **No** | **No** | **No** | **No** | **No** |

*Source: CalEEMod version 2016.3.2. Refer to **Attachment A** for Model Data Outputs.*

*Notes: Emissions estimates account for the demolition of 1,300 square feet of structures and three existing driveway entrances. Building construction, paving, and architectural coating assumed to occur simultaneously.*

*All construction projects in San José are required to implement the BAAQMD's Basic Construction Mitigation Measures per General Plan Action MS-13.4. Emissions estimates account for the quantifiable components of the BAAQMD's Basic Construction Mitigation Measures, specifically watering unpaved portions of the construction site twice daily, limiting off-road equipment to speeds of 15 mph, and removing dirt track-out on adjacent public roads with a wet power vacuum once daily.*

All construction projects in San José are required to implement the BAAQMD's Basic Construction Mitigation Measures (see **Table 2-4**) as a condition of Project approval per General Plan Action MS-13.4, which requires the City to include on project plans as conditions of approval a Project requirement to implement BAAQMD's Basic Construction Mitigation Measures. Therefore, the proposed Project would conform to BAAQMD recommendations related to fugitive dust emissions. As shown in **Table 2-6**, all criteria pollutant emissions would remain below their respective thresholds during Project construction. Therefore, criteria pollutant emissions generated during Project construction would not result in a violation of air quality standards.

## ***PROJECT OPERATIONS CRITERIA AIR QUALITY EMISSIONS***

### *Operational Significance Analysis*

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as $PM_{10}$, $PM_{2.5}$, CO, and $SO_2$ as well as ozone precursors such as ROG and $NO_X$. Project-generated emissions would be predominantly associated with motor vehicle use. Long-term operational emissions attributable to the proposed Project are summarized in **Table 2-7**. As previously described, projected emissions associated with proposed operations are compared to the existing baseline, which includes the current operation of an existing convenience store and gasoline dispensing station.

| Table 2-7. Operational Criteria Air Pollutant Emissions | | | | | | |
|---|---|---|---|---|---|---|
| **Emission Source** | **Pollutant** | | | | | |
| | **ROG** | **$NO_X$** | **CO** | **$SO_2$** | **$PM_{10}$** | **$PM_{2.5}$** |
| **Proposed 3,079-Square Foot Convenience Store, 11 Parking Spaces, & 12-Position Gasoline Dispensing Station** | | | | | | |
| ***Summer Emissions (Pounds per Day)*** | | | | | | |
| **Proposed Project** | 5.38 | 19.15 | 60.30 | 0.18 | 15.36 | 4.23 |
| ***Winter Emissions (Pounds per Day)*** | | | | | | |
| **Proposed Project** | 4.76 | 20.43 | 59.50 | 0.17 | 15.36 | 4.23 |
| ***Annual Emissions (Tons per Year)*** | | | | | | |
| **Proposed Project** | 0.8 | 3.6 | 10.4 | 0.0 | 2.7 | 0.7 |
| **Existing 1,300-Square Foot Convenience Store & 12-Position Gasoline Dispensing Station** | | | | | | |
| ***Summer Emissions (Pounds per Day)*** | | | | | | |
| **Existing Baseline** | 4.99 | 17.37 | 56.50 | 0.15 | 13.04 | 3.60 |
| ***Winter Emissions (Pounds per Day)*** | | | | | | |
| **Existing Baseline** | 4.43 | 18.60 | 55.91 | 0.14 | 13.04 | 3.60 |
| ***Annual Emissions (Tons per Year)*** | | | | | | |
| **Existing Baseline** | 0.8 | 3.3 | 9.8 | 0.0 | 2.3 | 0.6 |
| **Difference** | | | | | | |
| ***Summer Emissions (Pounds per Day)*** | | | | | | |
| **Difference** | **0.39** | **1.78** | **3.80** | **0.03** | **2.32** | **0.63** |
| *BAAQMD Daily Significance Threshold* | *54 pounds/day* | *54 pounds/day* | *None* | *None* | *82 pounds/day* | *54 pounds/day* |
| **Exceed BAAQMD Daily Threshold?** | **No** | **No** | **No** | **No** | **No** | **No** |
| ***Winter Emissions (Pounds per Day)*** | | | | | | |
| **Difference** | **0.33** | **1.83** | **3.59** | **0.03** | **2.32** | **0.63** |
| *BAAQMD Daily Significance Threshold* | *54 pounds/day* | *54 pounds/day* | *None* | *None* | *82 pounds/day* | *54 pounds/day* |
| **Exceed BAAQMD Daily Threshold?** | **No** | **No** | **No** | **No** | **No** | **No** |
| ***Annual Emissions (Tons per Year)*** | | | | | | |
| **Difference** | **0.0** | **0.3** | **0.6** | **0.0** | **0.4** | **0.1** |
| *BAAQMD Annual Significance Threshold* | *10 tons/year* | *10 tons/year* | *None* | *None* | *15 tons/year* | *10 tons/year* |
| **Exceed BAAQMD Daily Threshold?** | **No** | **No** | **No** | **No** | **No** | **No** |

*Source: CalEEMod version 2016.3.2. Refer to **Attachment A** for Model Data Outputs.*

*Notes: Emissions projections account for a trip generation rate identified by Kimley Horn (2020).*

As shown in **Table 2-7**, the Project's net emissions over the existing baseline would not exceed BAAQMD thresholds for any criteria air pollutants. The Project's operational emissions would not exceed any BAAQMD thresholds for any criteria air pollutants and therefore would not result in a violation of air quality standards.

## ***CONFLICT WITH THE 2017 CLEAN AIR PLAN***

As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously stated, the BAAQMD prepared the Bay Area 2017 Clean Air Plan, a regional strategy to protect public health from air pollutants and protect the climate. The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants. Criteria for determining consistency with the Clean Air Plan are defined by the following indicators:

- Consistency Criterion No. 1: The Project supports the primary goals of the Clean Air Plan.
- Consistency Criterion No. 2: The Project conforms to applicable control measures from the Clean Air Plan and does not disrupt or hinder the implementation of any Clean Air Plan control measures.

The primary goals to which Consistency Criterion No. 1 refer are compliance with the state ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). As evaluated above, the Project would not exceed the short-term construction standards. Similarly, the Project would not exceed the long-term operational standards and would not violate air quality standards during Project operation. Thus, no impact would occur concerning Criterion No. 1.

Regarding Consistency Criterion No. 2, consistency of the proposed Project with 2017 Clean Air Plan is demonstrated by assessing whether the Project supports all of the Project-applicable Clean Air Plan control measures. The control strategies of the Clean Air Plan include *Stationary Source Measures*, *Mobile Source Measures*, and *Transportation Control Measures*. The 2017 Clean Air Plan also identifies two additional subcategories of control measures, which are *Land Use and Local Impact Measure*s, which address the exposure of sensitive receptors to toxic air contaminants, and *Energy and Climate Measures*, which address greenhouse gas emissions.

Stationary Source Measures in the Clean Air Plan, such as those implemented to control emissions from metal melting facilities, cement kilns, refineries, and glass furnaces, are not applicable to the proposed Project. Therefore, consistency with the Clean Air Plan *Stationary Source Measures* is not evaluated further.

*Transportation and Mobile Source Control Measures*

The BAAQMD identifies transportation and mobile source control measures as part of the Clean Air Plan to reduce ozone precursor emissions from these sources. The transportation control measures are designed to reduce emissions from motor vehicles by reducing vehicle trips and vehicle miles traveled (VMT) in addition to vehicle idling and traffic congestion. The proposed Project is consistent with the Clean Air Plan's transportation and mobile source control measures in that it is the redevelopment of an existing urban environment. The Project is considered 'infill development' as it proposes to redevelop a built-out property and enhance the physical design of the urban environment. Under Public Resources Code (PRC) section 21061.3, an "infill site" is defined as a site that "has been previously developed for qualified urban uses." In turn, a "qualified urban use" is defined, pursuant to PRC section 21072, as "any residential, commercial, or public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses." Additionally, the Project site is located in an "urbanized area," which is defined under PRC section 21071 as "an incorporate city" that meets the criteria of having a population of at least 100,000 persons.

The Project would locate a commercial land uses in close to proximity to existing off-site residential uses. The preservation of land use diversity and mix of uses in the Project area would continue to reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.

These aspects of the Project would result in the generation of a reduced amount of air pollutants. According to the EPA, redevelopments produce 32 to 57 percent less air pollutant emissions per capita relative to conventional developments; this is because the number of daily vehicle trips and daily VMT associated with redevelopments tend to be lower compared with development on vacant land (EPA 2011). As a result, the proposed Project would not conflict with the identified transportation and mobile source control measures of the Clean Air Plan.

*Land Use and Local Impact Measures*

The BAAQMD Clean Air Plan includes Land Use and Local Impact Measures to ensure that planned growth is focused in a way that protects people from exposure to air pollution associated with stationary and mobile sources of emissions and to promote mixed-use, compact development to reduce motor vehicle travel and emissions. The Land Use and Local Impact Measures identified by the BAAQMD are not specifically applicable to the proposed Project as they relate to actions the BAAQMD will take to reduce impacts from goods movement and health risks in affected communities at the plan level. The measures also detail new regulatory actions the BAAQMD will undertake related to land use, including updates to the CEQA Air Quality Guidelines, and indirect source review.

However, the proposed Project would be a redevelopment infill development Project in support of these measures. For instance, the Project can be identified for its "location efficiency". Location efficiency describes the location of the Project relative to the type of urban landscape its proposed to fit within, such as an 'urban area', 'compact infill', or 'suburban center'. In general, compared to the statewide average, a project could realize VMT reductions up to 65 percent in an urban area, up to 30 percent in a compact infill area, or up to 10 percent in a suburban center (CAPCOA 2017). The Project site represents an

urban/compact infill location within San José. The location efficiency of the Project site would result in synergistic benefits that would reduce vehicle trips and VMT compared to the statewide average and would result in corresponding reductions in transportation-related emissions.

For these reasons, the Project would not conflict with any of the Land Use and Local Impact Measures of the Bay Area Clean Air Plan.

*Energy and Climate Control Measures*

The Clean Air Plan also includes Energy and Climate Control Measures, which are designed to reduce ambient concentrations of criteria pollutants and reduce emissions of carbon dioxide. Implementation of these measures is intended to promote energy conservation and efficiency in buildings throughout the community. As previously described, the proposed new convenience store building would be built to 2016 Title 24 Building Energy Efficiency Standards. The 2016 Building Energy Efficiency Standards are 5 percent more efficient than previous 2013 Standards for nonresidential construction. The 2013 Standards were 25 percent more efficient than the 2010 Standards. Energy-efficient buildings require less energy use, and increased energy efficiency reduces fossil fuel consumption and decreases criteria air pollutant emissions. Therefore, the proposed Project would not conflict with the BAAQMD Energy and Climate Control Measures.

For these reasons, the proposed Project would conform to the Project-applicable control measures in the Clean Air Plan and would not disrupt or hinder the implementation of any other control measures.

## ***EXPOSURE OF SENSITIVE RECEPTORS TO TOXIC AIR CONTAMINANTS***

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

### ***Construction-Generated Air Contaminants***

Construction-related activities would result in temporary, short-term Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary TAC of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted the maximum construction-related annual emissions of $PM_{2.5}$ exhaust, considered a surrogate for DPM, would be 1.09 pounds per day (see **Table 2-6**) during construction activity ($PM_{2.5}$ is considered a surrogate for DPM because more than 90 percent of DPM is

less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., $PM_{2.5}$), according to CARB. Most $PM_{2.5}$ derives from combustion, such as use of gasoline and diesel fuels by motor vehicles.) Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the Project site, rather than a single location, because different types of construction activities (e.g., demolition, site preparation, building construction) would not occur at the same place at the same time.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. As shown in **Table 2-6**, the BAAQMD considers the emission of 54 pounds per day of $PM_{2.5}$ exhaust significant. Additionally, according to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-, 30-, or 9-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed Project. Consequently, an important consideration is the fact that construction of the proposed Project is anticipated to last less than one year. Furthermore, the use of off-road heavy-duty diesel equipment would be limited to the periods of construction for which most diesel-powered off-road equipment use would occur, which are the site preparation and grading phases of construction, and these construction activities are anticipated to last less than a month. Therefore, considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction, the relatively short duration of construction activities (one year) required to develop the site, including less than a month of site preparation and grading activities, and the highly dispersive properties of DPM, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics.

### *Operational Air Contaminants*

The Project site is currently operating with a gasoline dispensing station and is currently a source of gasoline vapors, including TACs such as benzene, methyl tertiary-butyl ether, toluene, and xylene. Benzene is the primary TAC associated with gas stations. Gasoline vapors are released during the filling of the stationary underground storage tanks (USTs) and during the transfer from those underground tanks to individual vehicles.

The BAAQMD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities. BAAQMD Regulation 8 Rule 7, *Gasoline Dispensing Facilities*, limits emissions of organic compounds from gasoline-dispensing facilities. Regulation 8 Rule 7 prohibits the transfer or allowance of the transfer of gasoline into stationary tanks at a gasoline-dispensing facility unless a CARB-certified Phase I vapor recovery system is used; and further prohibits the transfer or allowance of the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline-dispensing facility unless a CARB-certified Phase II vapor recovery system is used during each transfer. Vapor recovery systems collect gasoline vapors that would otherwise escape into the air during bulk fuel delivery (Phase I)

or fuel storage and vehicle refueling (Phase II). Phase I vapor recovery system components include the couplers that connect tanker trucks to the underground tanks, spill containment drain valves, overfill prevention devices, and vent pressure/vacuum valves. Phase II vapor recovery system components include gasoline dispensers, nozzles, piping, break away, hoses, face plates, vapor processors, and system monitors. Regulation 8 Rule 7 also requires fuel storage tanks to be equipped with a permanent submerged fill pipe and the storage tank which prevents the escape of gasoline vapors. BAAQMD's permitting procedures require substantial control of emissions, and permits are not issued unless TAC risk screening or TAC risk assessment can show that risks are not significant. BAAQMD may impose limits on annual throughput to ensure that risks are within acceptable limits. In addition, California has statewide limits on the benzene content in gasoline, which greatly reduces the toxic potential of gasoline emissions.

Gasoline-dispensing facilities are also regulated by BAAQMD Regulation 2, Rule 5, *New Source Review of Toxic Air Contaminants*, which provides for the review of TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced. Pursuant to BAAQMD Regulation 2, Rule 5, stationary sources having the potential to emit TACs, including gas stations, are required to obtain permits from BAAQMD. Permits may be granted to these operations provided they are operated in accordance with applicable BAAQMD rules and regulations. The BAAQMD's permitting procedures require substantial control of emissions, and permits are not issued unless TAC risk screening or TAC risk assessment can show that risks are not significant. The BAAQMD may impose limits on annual throughput to ensure that risks are within acceptable limits. (In addition, California has statewide limits on the benzene content in gasoline, which greatly reduces the toxic potential of gasoline emissions.) The following requirements must be met before a BAAQMD permit is granted to the proposed gasoline station component of the Project.

- The cumulative increase from all TACs emitted from a single piece of equipment in maximum individual cancer risk (MICR) shall not exceed:
  - one in one million ($1 \times 10^{-6}$) if Best Available Control Technology for Toxics (T-BACT) is not used; or
  - ten in one million ($10 \times 10^{-6}$) if T-BACT is used.
- The cumulative cancer burden from all TACs emitted from a single piece of equipment (increase in cancer cases in the population) shall not exceed 0.5.
- Neither the chronic hazard index (HIC), the 8-hour chronic hazard index (HIC8), nor the total acute hazard index (HIA) from all TACs emitted from a single piece of equipment shall exceed 1.0 for any target organ system, or an alternate hazard index level deemed to be safe.

The Project is not proposing to increase the quantity of fuel-dispensing pumps and therefore could be expected to emit the same intensity of TAC emissions as currently emitted under existing conditions. Further, the proposed Project would be required to continue compliance with applicable standards and regulations that are required as part of the current BAAQMD permit procedure.

For the reasons described, the Project would not expose any receptors to substantial concentrations of air toxics.

### *Carbon Monoxide Hot Spots*

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Project vicinity have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours.[1] Based on BAAQMD guidance, projects meeting all of the following screening criteria would be considered to have a less than significant impact on localized CO concentrations if:

1. The Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plans, and local congestion management agency plans.

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

3. The Project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g.,

[1] Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. Level of service is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The site currently contains an operational gasoline dispensing station with 12 fueling positions and these features would remain with implementation of the proposed Project. No new fueling positions are proposed. According to Local Transportation Analysis (Kimley Horn 2020), the Project would increase traffic volumes by 407 daily trips compared with existing conditions. Because these traffic volumes are less than 44,000 vehicles per day, there is no likelihood of the Project traffic exceeding CO values.

## ***ODORS***

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

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

The Project site could be considered a source of unpleasant odors by some given its current and continuing use as a gasoline dispensing station; however, as previously stated, BAAQMD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities as articulated in BAAQMD Regulation 8 Rule 7. Additionally, BAAQMD Regulation 7, *Odorous Substances*, states that no person shall discharge any odorous substance which causes the ambient air at or beyond the property line of such person to be odorous and to remain odorous after dilution with four parts of odor-free air.

## ***CUMULATIVE AIR QUALITY IMPACTS***

The cumulative setting for air quality includes San José and the SFBAAB. The SFBAAB is designated as a nonattainment area for the federal ozone and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for state ozone, $PM_{10}$, and $PM_{2.5}$ standards (CARB 2017b). Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards. Thus, the setting for this cumulative analysis consists of the SFBAAB and associated growth and development anticipated in the air basin.

By its nature, air pollution is largely a cumulative impact. According to the BAAQMD, no single project by itself is sufficient in size to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. According to the BAAQMD, if a project exceeds its identified project-level significance thresholds, that project would be cumulatively considerable. As demonstrated above, the proposed Project would not exceed BAAQMD thresholds for air pollutant emissions during construction or operations (see **Tables 2-6** and **2-7**). Therefore, since the Project does not exceed BAAQMD significance thresholds, it would not result in a cumulatively considerable net increase of criteria pollutants.

# 3.0 GREENHOUSE GAS EMISSIONS

## 3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014).

**Table 3-1** describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

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. $CH_4$ traps over 25 times more heat per molecule than $CO_2$, and $N_2O$ absorbs 298 times more heat per molecule than $CO_2$ (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents ($CO_2e$), 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.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more $CO_2$ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused $CO_2$ emissions, approximately 55 percent is sequestered through ocean and land uptakes every

year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused $CO_2$ emissions remains stored in the atmosphere (IPCC 2013).

**Table 3-1. Greenhouse Gases**

| Greenhouse Gas | Description |
|---|---|
| $CO_2$ | Carbon dioxide 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.[1] |
| $CH_4$ | Methane is a colorless, odorless gas and 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 (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of $CH_4$ to the atmosphere. Natural sources of $CH_4$ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of $CH_4$ is about12 years.[2] |
| $N_2O$ | Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide 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, adipic 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 120 years.[3] |

*Sources: [1] EPA 2016a, [2] EPA 2016b, [3] EPA 2016c*

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

### *Sources of Greenhouse Gas Emissions*

In June 2017, CARB released the 2017 edition of the California GHG inventory covering calendar year 2015 emissions. In 2015, California emitted 440.4 million gross metric tons of $CO_2e$ including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2015, accounting for approximately 37 percent of total GHG emissions in the state. This sector was followed by the industrial sector (21 percent) and the electric power sector (including both in-state and out-of-state sources) (19 percent) (CARB 2017c).

Emissions of $CO_2$ are by-products of fossil fuel combustion. $CH_4$, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. $N_2O$ is also largely attributable to agricultural practices and soil management. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb $CO_2$ through sequestration and dissolution ($CO_2$ dissolving into the water), respectively, two of the most common processes for removing carbon dioxide from the atmosphere.

## 3.2 Regulatory Framework

### *State*

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada 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 for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

While dated, this executive order remains relevant because a more recent California Appellate Court decision, *Cleveland National Forest Foundation v. San Diego Association of Governments* (November 24, 2014) 231 Cal.App.4th 1056, examined whether it should be viewed as having the equivalent force of a legislative mandate for specific emissions reductions. While the California Supreme Court ruled that the San Diego Association of Governments did not abuse its discretion by declining "to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal, the decision also recognized that the goal of a 40 percent reduction in 1990 GHG levels by 2030 is "widely acknowledged" as a "necessary interim target to ensure that California meets its longer-range goal of reducing greenhouse gas emissions 80 percent below 1990 levels by the year 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill 32 (Health and Safety Code §38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). AB 32 anticipates that the GHG reduction goals will be met, in part, through local government actions. CARB has identified a GHG reduction target of 15 percent from current levels for local governments and notes that successful implementation relies on local governments' land use planning and urban growth decisions.

Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which was re-approved by CARB on August 24, 2011, that outlines measures to meet the 2020 GHG reduction goals. To meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels or about 15 percent from today's levels. The Scoping Plan recommends measures for further study and possible State implementation, such as new fuel regulations. It estimates that a reduction of 174 million metric tons of $CO_2e$ (about 191 million U.S. tons) from the transportation, energy, agriculture, and forestry sectors and other sources could be achieved should the State implement all of the measures in the Scoping Plan.

The Scoping Plan is required by AB 32 to be updated at least every five years. The first update to the AB 32 Scoping Plan was approved on May 22, 2014 by CARB. The 2017 Scoping Plan Update was adopted on December 14, 2017. The Scoping Plan Update addresses the 2030 target established by Senate Bill 32 (SB

32) as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include: increasing the use of renewable energy in the state, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Executive Order B-30-15

On April 20, 2015 Governor Brown signed Executive Order B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California.

In October 2015, SB 350 was signed by Governor Brown, which requires retail sellers and publicly-owned utilities to procure 50 percent of their electricity from renewable resources by 2030. In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 RPS.

### *Local*

Bay Area Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, BAAQMD CEQA Guidelines include guidance on assessing GHGs and climate change impacts as required under CEQA Section 15183.5(b) and establish thresholds of significance for impacts related to GHG emissions. These guidelines are based on substantial evidence to "attribute an appropriate share of greenhouse gas emission reductions necessary to reach AB 32 goals to new land use development projects in the BAAQMD's jurisdiction that are evaluated pursuant to CEQA" (BAAQMD 2017a).

The BAAQMD project-level operational threshold of significance for GHG emissions is the project generation of 1,100 metric tons of $CO_2e$ per year during operations (bright-line numeric threshold); **or** the project generation of 4.6 metric tons of $CO_2e$ per service population (employees + patrons + residents) per year during operations (efficiency-based threshold); **or** compliance with a Qualified GHG Reduction Strategy.

Association of Bay Area Governments Final Plan Bay Area 2040

The Association of Bay Area Governments' (ABAG) Plan Bay Area is the Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) for the San Francisco Bay Area. ABAG was tasked by CARB to achieve a 7 percent per capita reduction in mobile-source GHG emissions compared to 2005 vehicle emissions by 2020 and a 15 percent per capita reduction by 2035. Plan Bay Area 2040 establishes an overall mechanism to achieve these GHG targets for the Project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32. CARB has confirmed the Project region will achieve its GHG reduction targets by implementing Plan Bay Area (CARB 2014).

Bay Area Air Quality Management District 2017 Clean Air Plan

The 2017 Plan provides a regional strategy to protect public health and protect the climate. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those greenhouse gas emissions reduction targets.

The 2017 Clean Air Plan includes a wide range of control measures designed to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

Climate Smart San José

Climate Smart San José is the City's continuation and expansion of the City's first foray into a City climate action plan, San José Green Vision. Climate Smart San José was established to take San José into the next generation of urban sustainability. It articulates how every facet of the City needs to transform in order to minimize our impact on the climate. Climate Smart San José builds on the General Plan by highlighting and interpreting those elements related to the community's profile of carbon dioxide emissions and then

providing additional analysis and recommendations. The Plan includes nine strategies and an action plan designed to reduce the City's and its inhabitants' GHG emissions and carbon footprint.

## 3.3 Greenhouse Gas Emissions Impact Assessment

### *Thresholds of Significance*

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

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

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

BAAQMD Thresholds

As previously described, the BAAQMD project-level operational threshold of significance for GHG emissions is the Project generation of 1,100 metric tons of $CO_2e$ per year during operations (bright-line numeric threshold); **or** the Project generation of 4.6 metric tons of $CO_2e$ per service population (employees + patrons + residents) per year during operations (efficiency-based threshold); **or** compliance with a Qualified GHG Reduction Strategy. The numeric bright line and efficiency-based thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners and lead agencies with regard to determining whether GHG emissions from a proposed project are significant. The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions; however, the air district recommends the quantification and disclosure of construction-generated GHG emissions.

For the purposes of this evaluation, the proposed Project is first be compared to the BAAQMD bright-line numeric threshold of 1,100 metric tons of $CO_2e$ per year during operations. These guidelines are based on substantial evidence to "attribute an appropriate share of greenhouse gas emission reductions necessary to reach AB 32 goals to new land use development projects in the BAAQMD's jurisdiction that are evaluated pursuant to CEQA" (BAAQMD 2017a). The Project is also compared for consistency with Climate Smart San José, the climate action plan for the City.

As previously described, statewide goals for GHG reductions in the years beyond 2020 have been recently codified into state law with the passage of SB 32. The California Cap-and-Trade Program is the centerpiece of the current Scoping Plan as it allows the state to put a firm limit on overall carbon emissions. Under Cap-and-Trade, an overall limit on GHG emissions from capped sectors is established and facilities subject to the cap would be able to trade permits to emit GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. The program also covers fuel suppliers (natural gas and propane fuel providers as well as transportation fuel providers). Accordingly, GHG emissions associated with the Project's electricity and natural gas usage are covered by the Cap-and-Trade Program, as are GHG emission associated with the combustion of transportation fuels in the state, whether refined in-state or

imported. Therefore, while Project design can contribute to reducing potential GHG emissions from the proposed Project, achievement of future GHG efficiency standards is also dependent, and primarily driven, on regulatory controls applied to all sectors of the California economy. Thus, the ability of this Project—and all land use development—to achieve GHG reduction goals beyond 2020 is partially out of the control of the Project and its proponents and is being addressed by the State of California. Nonetheless, the Project is compared to ABAG's Plan Bay Area, the RTP/SCS for the San Francisco Bay Area, which establishes an overall GHG target for the project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32. The Project is also compared to the BAAQMD 2017 Clean Air Plan, which defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG emissions reduction targets.

#### *Methodology*

GHG impacts were assessed in accordance with methodologies recommended by CARB and the BAAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction-generated GHG emissions were primarily calculated using CalEEMod model defaults. Operational GHG emissions were based on the Project site plans and automobile trip rates identified in the Local Transportation Analysis (Kimley Horn 2020) prepared for the Project.

For the purposes of this analysis, projected GHG emissions associated with proposed operations are compared to the existing baseline, which includes an existing gasoline dispensing station and 1,300-square foot convenience store.

#### *Impact Analysis*

## *CONTRIBUTION OF GREENHOUSE GAS EMISSIONS*

### *Construction*

Construction-related activities that would generate GHGs include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). **Table 3-2** illustrates the specific construction-generated GHG emissions that would result from construction of the Project.

| Table 3-2. Construction-Related Greenhouse Gas Emissions | |
|---|---|
| **Emissions Source** | **$CO_2e$ (Metric Tons/ Year)** |
| Construction | 131 |
| **Total** | **131** |

*Source: CalEEMod version 2016.3.2. Refer to **Attachment A** for Model Data Outputs.*
*Notes: Emissions estimates account for the demolition of 1,300 square feet of structures and three existing driveways on-site. Building construction, paving, and architectural coating assumed to occur simultaneously.*

As shown in **Table 3-2**, Project construction (including demolition activities) would result in the generation of approximately 131 metric tons of $CO_2e$ over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. As previously stated, the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. GHG emissions generated by the construction sector have been declining in recent years. For instance, construction equipment engine efficiency has continued to improve year after year. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the EPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards. Tier 3 engine standards reduce precursor and subset GHG emissions such as nitrogen oxide by as much as 60 percent. On May 11, 2004, the EPA signed the final rule introducing Tier 4 emission standards, which are currently phased-in over the period of 2008-2015. The Tier 4 standards require that emissions of nitrogen oxide be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards.

In addition, the California Energy Commission recently adopted changes to the 2016 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code). The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. For instance, effective January 1, 2017, owners/builder of construction projects have been required to divert (recycle) 65 percent of generated construction waste materials generated during the project. This requirement greatly reduces the generation of GHG emissions by reducing decomposition at landfills, which is a source of $CH_4$, and reducing demand for natural resources.

### *Operations*

Operation of the Project would result in GHG emissions. Projected GHG emissions associated with proposed operations are quantified and compared to the existing baseline, which as previously stated includes a 1,300-square foot convenience store. **Table 3-3** summarizes all the direct and indirect annual GHG emissions associated with the Project.

| Table 3-3. Operational Greenhouse Gas Emissions | |
|---|---|
| **Emission Source** | **$CO_2e$ (Metric Tons/ Year)** |
| **Proposed 3,079-Square Foot Convenience Store, 11 Parking Spaces, & 12-Position Gasoline Dispensing Station** | |
| Area Source (landscaping, hearth) | 0 |
| Energy | 17 |
| Mobile | 2,861 |
| Waste | 8 |
| Water | 1 |
| **Total** | **2,887** |
| **Existing 1,500-Square Foot Convenience Store & 12-Position Gasoline Dispensing Station** | |
| Area Source (landscaping, hearth) | 0 |
| Energy | 13 |
| Mobile | 2,490 |
| Waste | 6 |
| Water | 1 |
| **Total** | **2,510** |
| **Difference** | |
| Area Source (landscaping, hearth) | 0 |
| Energy | +4 |
| Mobile | +371 |
| Waste | +2 |
| Water | 0 |
| **Total** | **+377** |
| *BAAQMD Bright-Line Significance Threshold* | *1,100* |
| **Exceed BAAQMD Daily Threshold?** | **No** |

*Source: CalEEMod version 2016.3.2. Refer to **Attachment A** for Model Data Outputs.*
*Notes: Emissions projections account for a trip generation rate identified by Kimley Horn (2020).*

As shown in **Table 3-3**, the increase in operational GHG emissions over the existing baseline would be 377 metric tons of $CO_2e$ per year as a result of the Project. Therefore, the proposed Project would not surpass the BAAQMD bright-line numeric significance threshold of 1,100 metric tons of $CO_2e$ annually. BAAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA (BAAQMD 2017a). Compliance with such thresholds will be part of the solution to the cumulative GHG emissions problem, rather than hinder the state's ability to meet its goals of reduced statewide GHG emissions under AB 32.

## CONFLICT WITH ANY APPLICABLE PLAN, POLICY, OR REGULATION OF AN AGENCY ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GREENHOUSE GASES

### Climate Smart San José

The Climate Smart San José is the City's climate action plan. This plan was adopted in 2017 and provides guidance and strategies for the reduction of GHG emissions in the City. The City will achieve reductions in GHG emissions through a mix of voluntary programs and new strategic standards. All standards presented in Climate Smart San José respond to the needs of development though achieving more efficient use of resources.

The Project would not obstruct the ability of the City to achieve the Climate Smart San José emission reduction targets. Climate Smart San José GHG-reducing strategies are derived, in part, by land use designations and associated densities projected in the City of San José General Plan. The proposed Project is consistent with the land use designation and development density presented in the City of San José General Plan. As previously described, the Project site has a General Plan designation of NCC, which allows for a broad range of commercial activity including that from convenience stores. Since the Project is consistent with the City of San José General Plan it is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the General Plan. As a result, the Project would not conflict with the land use assumptions or exceed the population or job growth projections used by the City to develop Climate Smart San José.

While Climate Smart San José does not contain specific requirements for renovated developments like that proposed by the Project, all development in San José, including the Project, is required to adhere to all City-adopted policy provisions, including those contained in the adopted Climate Smart San José. The City ensures all feasible GHG-reducing strategies of Climate Smart San José are incorporated into projects and their permits through development review and applications of conditions of approval as applicable.

The proposed Project would not conflict with this adopted plan pertaining to the reduction of GHG emissions.

### Bay Area Air Quality Management Plan 2017 Clean Air Plan

As previously described, the 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. The 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG emissions reduction targets. The 2017 Clean Air Plan includes a wide range of control measures designed to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The 2017 Clean Air Plan includes a diverse range of control measures designed to decrease GHG emissions. Consistency of the proposed Project with 2017 Clean Air Plan is demonstrated by assessing whether the Project supports all of the Project-applicable Clean Air Plan control measures for GHG emissions. The GHG-related control strategies of the Clean Air Plan include *Mobile Source Measures*,

*Transportation Control Measures* and *Energy and Climate Measures.* (The *Land Use and Local Impact Measure*s address the exposure of sensitive receptors to toxic air contaminants and is thereby not applicable to this impact discussion of GHG emissions. Additionally, the Stationary Source Measures in the Clean Air Plan such as those implemented to control emissions from metal melting facilities, cement kilns, refineries, and glass furnaces are not applicable to the proposed Project.)

Project-consistency with the 2017 Clean Air Plan has been previously described (see pages 25 - 26). The proposed Project would conform to the Project-applicable control measures in the Clean Air Plan and would not disrupt or hinder the implementation of any other control measures.

The proposed Project would not conflict with this adopted plan pertaining to the reduction of GHG emissions.

### *Association of Bay Area Governments Final Plan Bay Area 2040*

ABAG's Plan Bay Area is the RTP/SCS for the San Francisco Bay Area. Plan Bay Area establishes GHG emissions goals for automobiles and light-duty trucks, a potent source of GHG emissions attributable to land use development. As previously described, ABAG was tasked by CARB to achieve a 7 percent per capita reduction in mobile-source GHG emissions compared to 2005 vehicle emissions by 2020 and a 15 percent per capita reduction by 2035. Plan Bay Area 2013-2040 establishes an overall mechanism to achieve these GHG targets for the Project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32. CARB has confirmed the Project region will achieve its GHG reduction targets by implementing Plan Bay Area (CARB 2014). The RTP/SCS contains thousands of individual transportation projects, including highway improvements, railway electrification, bicycle lanes, new transit hubs, and replacement bridges. These future investments seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and use resources more efficiently.

Plan Bay Area 2040's core strategy is "focused growth" in existing communities along the existing transportation network. This strategy allows the best "bang for the buck" in achieving key regional economic, environmental and equity goals: It builds upon existing community characteristics, efficiently leverages existing infrastructure and mitigates impacts on areas with less development. The RTP/SCS identifies 200 "Priority Development Areas" which are areas focused for growth and development. Priority Development Areas are defined by the RTP/SCS as existing neighborhoods that are served by public transit and have been identified as appropriate for additional, compact development.

The Project site is located in an area identified as a Priority Development Area in the RTP/SCS. Since the Project site is a Priority Development Area in the RTP/SCS planning period as opposed to "Priority Conservation Area," it is included in an area where urban development is both predicted and encouraged

by ABAG (ABAG 2017, Map 4.5). Furthermore, the Project is a modernization of land uses within a built environment (infill development), resulting in an increase of land use densification on the Project site. The Project will increase density in the vicinity over current conditions. Increased density, measured in terms of persons, jobs, or building square footage, potentially reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies such as enhanced transit services.

For these reasons, the Project is consistent with Plan Bay Area and it can be assumed that regional mobile emissions will decrease in line with the goals of Plan Bay Area with implementation of the proposed Project. Implementing ABAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, and the proposed Project will not obstruct the achievement of Plan Bay Area's emission reduction targets.

## ***CUMULATIVE GHG IMPACTS***

Climate change is a global problem. And GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have much longer atmospheric lifetimes of 1 year to several thousand years that allow them to be dispersed around the globe.

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the proposed Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As previously discussed, the proposed Project would not conflict with Climate Smart San José, the BAAQMD 2017 Clean Air Plan, or Plan Bay Area, the RTP/SCS for the Bay Area. As a result, the Project would not conflict with any GHG reduction plans. Therefore, the Project's cumulative contribution of GHG emissions would be less than significant and the Project's cumulative GHG impacts would also be less than cumulatively considerable.

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# 4.0 REFERENCES

ABAG (Association of Bay Area Governments). 2017. *Plan Bay Area 2040, Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area.* Adopted July 26, 2017.

BAAQMD (Bay Area Air Quality Management District). 2017a. *Bay Area Air Quality Management District CEQA Air Quality Guidelines*.

———. 2017b. *Bay Area Final 2017 Clean Air Plan.*

———. 2017c. *California Greenhouse Gas Emission Inventory 2017 Edition*. https://www.arb.ca.gov/cc/inventory/data/data.htm.

CARB (California Air Resources Board). 2014. *Technical Valuation of the Greenhouse Gas Emission Reduction Quantification for Association of Monterey Bay Area Governments' SB 375 Sustainable Communities Strategy.* http://www.arb.ca.gov/cc/sb375/sb375.htm.

———. 2017a. Air Quality Data Statistics. http://www.arb.ca.gov/adam/index.html.

———. 2017b. State and Federal Area Designation Maps. http://www.arb.ca.gov/desig/adm/adm.htm.

———. 2017c. *California Greenhouse Gas Emission Inventory 2017 Edition*. https://www.arb.ca.gov/cc/inventory/data/data.htm.

CAPCOA (California Air Pollution Control Officers Association). 2013. Health Effects. http://www.capcoa.org/health-effects/.

———. 2017. California Emissions Estimator Model (CalEEMod), version 2016.3.2.

EPA (US Environmental Protection Agency). 2011. *Air and Water Quality Impacts of Brownfield Redevelopment*.

———. 2016a. *Climate Change – Greenhouse Gas Emissions: Carbon Dioxide*. http://www.epa.gov/climatechange/emissions/co2.html.

———. 2016b. *Methane*. https://www3.epa.gov/climatechange/ghgemissions/gases/ch4.html.

———. 2016c. *Nitrous Oxide*. https://www3.epa.gov/climatechange/ghgemissions/gases/n2o.html.

IPCC (Intergovernmental Panel on Climate Change). 2013. *Carbon and Other Biogeochemical Cycles.* In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. http://www.climatechange2013.org/ images/report/WG1AR5_ALL_FINAL.pdf.

———. 2014. *Climate Change 2014 Synthesis Report: Approved Summary for Policymakers.* http://www.ipcc.ch/.

Kimley Horn. 2020. 2305 Story Road Rotten Robbie Local Transportation Analysis.

San José, City of. 2011. Envision San José 2040 General Plan. http://www.sanjoseca.gov/index.aspx?nid=1737.

SCAQMD (South Coast Air Quality Management District). 2015. *2015 Risk Assessment Procedures for Rules 1401, 1401.1, & 212*.

# ATTACHMENT A

**CalEEMod Output Files – Criteria Air Pollutants & Greenhouse Gas Emissions**

# Rotten Robbie #11 - Proposed Project

**Santa Clara County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 11.00 | Space | 0.00 | 4,400.00 | 0 |
| Convenience Market (24 Hour) | 3.08 | 1000sqft | 0.60 | 3,079.00 | 0 |
| Gasoline/Service Station | 12.00 | Pump | 0.04 | 1,694.10 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 4 | | | **Operational Year** | 2019 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 641.35 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site = 0.6 acre

Construction Phase - Building construction, paving and painting assumed to occur simultaneously

Demolition -

Vehicle Trips - Trip rate per Kimley Horn

Construction Off-road Equipment Mitigation - BAAQMD Basic Construction Measures

Rotten Robbie #11 - Proposed Project - Santa Clara County, Summer

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 40 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 5.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 100.00 |
| tblLandUse | LandUseSquareFeet | 3,080.00 | 3,079.00 |
| tblLandUse | LotAcreage | 0.10 | 0.00 |
| tblLandUse | LotAcreage | 0.07 | 0.60 |
| tblVehicleTrips | DV_TP | 27.00 | 0.00 |
| tblVehicleTrips | PB_TP | 59.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 863.10 | 0.00 |
| tblVehicleTrips | ST_TR | 168.56 | 223.50 |
| tblVehicleTrips | SU_TR | 758.45 | 0.00 |
| tblVehicleTrips | SU_TR | 168.56 | 223.50 |
| tblVehicleTrips | WD_TR | 737.99 | 0.00 |
| tblVehicleTrips | WD_TR | 168.56 | 223.50 |

## 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 | | | | | |
| 2019 | 2.6634 | 19.8028 | 17.2692 | 0.0280 | 0.8349 | 1.1796 | 1.3739 | 0.4356 | 1.0991 | 1.1509 | 0.0000 | 2,705.9426 | 2,705.9426 | 0.6899 | 0.0000 | 2,723.1907 |
| **Maximum** | **2.6634** | **19.8028** | **17.2692** | **0.0280** | **0.8349** | **1.1796** | **1.3739** | **0.4356** | **1.0991** | **1.1509** | **0.0000** | **2,705.9426** | **2,705.9426** | **0.6899** | **0.0000** | **2,723.1907** |

### 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 | | | | | |
| 2019 | 2.6634 | 19.8028 | 17.2692 | 0.0280 | 0.3923 | 1.1796 | 1.3072 | 0.2010 | 1.0991 | 1.1346 | 0.0000 | 2,705.9426 | 2,705.9426 | 0.6899 | 0.0000 | 2,723.1907 |
| **Maximum** | **2.6634** | **19.8028** | **17.2692** | **0.0280** | **0.3923** | **1.1796** | **1.3072** | **0.2010** | **1.0991** | **1.1346** | **0.0000** | **2,705.9426** | **2,705.9426** | **0.6899** | **0.0000** | **2,723.1907** |

| | ROG | NOx | 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** | **53.01** | **0.00** | **4.85** | **53.86** | **0.00** | **1.42** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| Energy | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |
| Mobile | 5.2689 | 19.1411 | 60.2876 | 0.1827 | 15.1681 | 0.1953 | 15.3634 | 4.0494 | 0.1838 | 4.2332 | | 18,380.6793 | 18,380.6793 | 0.6564 | | 18,397.0896 |
| **Total** | **5.3886** | **19.1551** | **60.3020** | **0.1827** | **15.1681** | **0.1964** | **15.3645** | **4.0494** | **0.1849** | **4.2343** | | **18,397.4417** | **18,397.4417** | **0.6568** | **3.1000e-004** | **18,413.9519** |

### 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 | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| Energy | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |
| Mobile | 5.2689 | 19.1411 | 60.2876 | 0.1827 | 15.1681 | 0.1953 | 15.3634 | 4.0494 | 0.1838 | 4.2332 | | 18,380.6793 | 18,380.6793 | 0.6564 | | 18,397.0896 |
| **Total** | **5.3886** | **19.1551** | **60.3020** | **0.1827** | **15.1681** | **0.1964** | **15.3645** | **4.0494** | **0.1849** | **4.2343** | | **18,397.4417** | **18,397.4417** | **0.6568** | **3.1000e-004** | **18,413.9519** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/20/2019 | 2/1/2019 | 5 | 10 | |
| 2 | Site Preparation | Site Preparation | 2/2/2019 | 2/4/2019 | 5 | 1 | |
| 3 | Grading | Grading | 2/5/2019 | 2/6/2019 | 5 | 2 | |
| 4 | Building Construction | Building Construction | 2/7/2019 | 6/26/2019 | 5 | 100 | |
| 5 | Paving | Paving | 2/7/2019 | 6/26/2019 | 5 | 100 | |
| 6 | Architectural Coating | Architectural Coating | 2/7/2019 | 6/26/2019 | 5 | 100 | |

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,160; Non-Residential Outdoor: 2,387; Striped Parking Area: 264 (Architectural Coating – sqft)**

**OffRoad Equipment**

Rotten Robbie #11 - Proposed Project - Santa Clara County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 11.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 3.00 | 2.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 1.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 3.2 Demolition - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2382 | 0.0000 | 0.2382 | 0.0361 | 0.0000 | 0.0361 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.2382** | **0.5371** | **0.7753** | **0.0361** | **0.5125** | **0.5485** | | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.2 Demolition - 2019

### 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 | 9.8800e-003 | 0.3354 | 0.0654 | 8.8000e-004 | 0.0192 | 1.3000e-003 | 0.0205 | 5.2700e-003 | 1.2500e-003 | 6.5200e-003 | | 94.0989 | 94.0989 | 4.2900e-003 | | 94.2060 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0380 | 0.0242 | 0.3060 | 8.4000e-004 | 0.0822 | 5.2000e-004 | 0.0827 | 0.0218 | 4.8000e-004 | 0.0223 | | 83.1978 | 83.1978 | 2.2500e-003 | | 83.2541 |
| **Total** | **0.0479** | **0.3596** | **0.3714** | **1.7200e-003** | **0.1014** | **1.8200e-003** | **0.1032** | **0.0271** | **1.7300e-003** | **0.0288** | | **177.2967** | **177.2967** | **6.5400e-003** | | **177.4601** |

### 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 | | | | | 0.1072 | 0.0000 | 0.1072 | 0.0162 | 0.0000 | 0.0162 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | 0.0000 | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.1072** | **0.5371** | **0.6443** | **0.0162** | **0.5125** | **0.5287** | **0.0000** | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.2 Demolition - 2019

**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 | 9.8800e-003 | 0.3354 | 0.0654 | 8.8000e-004 | 0.0134 | 1.3000e-003 | 0.0147 | 3.8400e-003 | 1.2500e-003 | 5.0900e-003 | | 94.0989 | 94.0989 | 4.2900e-003 | | 94.2060 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0380 | 0.0242 | 0.3060 | 8.4000e-004 | 0.0536 | 5.2000e-004 | 0.0541 | 0.0148 | 4.8000e-004 | 0.0153 | | 83.1978 | 83.1978 | 2.2500e-003 | | 83.2541 |
| **Total** | **0.0479** | **0.3596** | **0.3714** | **1.7200e-003** | **0.0670** | **1.8200e-003** | **0.0688** | **0.0186** | **1.7300e-003** | **0.0204** | | **177.2967** | **177.2967** | **6.5400e-003** | | **177.4601** |

## 3.3 Site Preparation - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7195 | 8.9170 | 4.1407 | 9.7500e-003 | | 0.3672 | 0.3672 | | 0.3378 | 0.3378 | | 965.1690 | 965.1690 | 0.3054 | | 972.8032 |
| **Total** | **0.7195** | **8.9170** | **4.1407** | **9.7500e-003** | **0.5303** | **0.3672** | **0.8975** | **0.0573** | **0.3378** | **0.3951** | | **965.1690** | **965.1690** | **0.3054** | | **972.8032** |

## 3.3 Site Preparation - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0190 | 0.0121 | 0.1530 | 4.2000e-004 | 0.0411 | 2.6000e-004 | 0.0413 | 0.0109 | 2.4000e-004 | 0.0111 | | 41.5989 | 41.5989 | 1.1300e-003 | | 41.6271 |
| **Total** | **0.0190** | **0.0121** | **0.1530** | **4.2000e-004** | **0.0411** | **2.6000e-004** | **0.0413** | **0.0109** | **2.4000e-004** | **0.0111** | | **41.5989** | **41.5989** | **1.1300e-003** | | **41.6271** |

### 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7195 | 8.9170 | 4.1407 | 9.7500e-003 | | 0.3672 | 0.3672 | | 0.3378 | 0.3378 | 0.0000 | 965.1690 | 965.1690 | 0.3054 | | 972.8032 |
| **Total** | **0.7195** | **8.9170** | **4.1407** | **9.7500e-003** | **0.2386** | **0.3672** | **0.6058** | **0.0258** | **0.3378** | **0.3636** | **0.0000** | **965.1690** | **965.1690** | **0.3054** | | **972.8032** |

## 3.3 Site Preparation - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0190 | 0.0121 | 0.1530 | 4.2000e-004 | 0.0268 | 2.6000e-004 | 0.0271 | 7.3900e-003 | 2.4000e-004 | 7.6300e-003 | | 41.5989 | 41.5989 | 1.1300e-003 | | 41.6271 |
| **Total** | **0.0190** | **0.0121** | **0.1530** | **4.2000e-004** | **0.0268** | **2.6000e-004** | **0.0271** | **7.3900e-003** | **2.4000e-004** | **7.6300e-003** | | **41.5989** | **41.5989** | **1.1300e-003** | | **41.6271** |

## 3.4 Grading - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7528 | 0.0000 | 0.7528 | 0.4138 | 0.0000 | 0.4138 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.7528** | **0.5371** | **1.2898** | **0.4138** | **0.5125** | **0.9263** | | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.4 Grading - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0380 | 0.0242 | 0.3060 | 8.4000e-004 | 0.0822 | 5.2000e-004 | 0.0827 | 0.0218 | 4.8000e-004 | 0.0223 | | 83.1978 | 83.1978 | 2.2500e-003 | | 83.2541 |
| **Total** | **0.0380** | **0.0242** | **0.3060** | **8.4000e-004** | **0.0822** | **5.2000e-004** | **0.0827** | **0.0218** | **4.8000e-004** | **0.0223** | | **83.1978** | **83.1978** | **2.2500e-003** | | **83.2541** |

### 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 | | | | | 0.3387 | 0.0000 | 0.3387 | 0.1862 | 0.0000 | 0.1862 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | 0.0000 | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.3387** | **0.5371** | **0.8758** | **0.1862** | **0.5125** | **0.6987** | **0.0000** | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.4 Grading - 2019

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0380 | 0.0242 | 0.3060 | 8.4000e-004 | 0.0536 | 5.2000e-004 | 0.0541 | 0.0148 | 4.8000e-004 | 0.0153 | | 83.1978 | 83.1978 | 2.2500e-003 | | 83.2541 |
| **Total** | **0.0380** | **0.0242** | **0.3060** | **8.4000e-004** | **0.0536** | **5.2000e-004** | **0.0541** | **0.0148** | **4.8000e-004** | **0.0153** | | **83.1978** | **83.1978** | **2.2500e-003** | | **83.2541** |

## 3.5 Building Construction - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9576 | 9.8207 | 7.5432 | 0.0114 | | 0.6054 | 0.6054 | | 0.5569 | 0.5569 | | 1,127.6696 | 1,127.6696 | 0.3568 | | 1,136.5892 |
| **Total** | **0.9576** | **9.8207** | **7.5432** | **0.0114** | | **0.6054** | **0.6054** | | **0.5569** | **0.5569** | | **1,127.6696** | **1,127.6696** | **0.3568** | | **1,136.5892** |

## 3.5 Building Construction - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.6300e-003 | 0.2490 | 0.0638 | 5.5000e-004 | 0.0135 | 1.8000e-003 | 0.0153 | 3.9000e-003 | 1.7300e-003 | 5.6200e-003 | | 58.6074 | 58.6074 | 2.7800e-003 | | 58.6770 |
| Worker | 0.0114 | 7.2500e-003 | 0.0918 | 2.5000e-004 | 0.0246 | 1.6000e-004 | 0.0248 | 6.5400e-003 | 1.4000e-004 | 6.6800e-003 | | 24.9593 | 24.9593 | 6.8000e-004 | | 24.9762 |
| **Total** | **0.0210** | **0.2563** | **0.1556** | **8.0000e-004** | **0.0382** | **1.9600e-003** | **0.0401** | **0.0104** | **1.8700e-003** | **0.0123** | | **83.5668** | **83.5668** | **3.4600e-003** | | **83.6532** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9576 | 9.8207 | 7.5432 | 0.0114 | | 0.6054 | 0.6054 | | 0.5569 | 0.5569 | 0.0000 | 1,127.6696 | 1,127.6696 | 0.3568 | | 1,136.5892 |
| **Total** | **0.9576** | **9.8207** | **7.5432** | **0.0114** | | **0.6054** | **0.6054** | | **0.5569** | **0.5569** | **0.0000** | **1,127.6696** | **1,127.6696** | **0.3568** | | **1,136.5892** |

## 3.5 Building Construction - 2019

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.6300e-003 | 0.2490 | 0.0638 | 5.5000e-004 | 9.6800e-003 | 1.8000e-003 | 0.0115 | 2.9500e-003 | 1.7300e-003 | 4.6800e-003 | | 58.6074 | 58.6074 | 2.7800e-003 | | 58.6770 |
| Worker | 0.0114 | 7.2500e-003 | 0.0918 | 2.5000e-004 | 0.0161 | 1.6000e-004 | 0.0162 | 4.4300e-003 | 1.4000e-004 | 4.5800e-003 | | 24.9593 | 24.9593 | 6.8000e-004 | | 24.9762 |
| **Total** | **0.0210** | **0.2563** | **0.1556** | **8.0000e-004** | **0.0258** | **1.9600e-003** | **0.0277** | **7.3800e-003** | **1.8700e-003** | **9.2600e-003** | | **83.5668** | **83.5668** | **3.4600e-003** | | **83.6532** |

## 3.6 Paving - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.8300 | 7.8446 | 7.1478 | 0.0113 | | 0.4425 | 0.4425 | | 0.4106 | 0.4106 | | 1,055.1823 | 1,055.1823 | 0.3016 | | 1,062.7231 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.8300** | **7.8446** | **7.1478** | **0.0113** | | **0.4425** | **0.4425** | | **0.4106** | **0.4106** | | **1,055.1823** | **1,055.1823** | **0.3016** | | **1,062.7231** |

## 3.6 Paving - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0685 | 0.0435 | 0.5508 | 1.5000e-003 | 0.1479 | 9.4000e-004 | 0.1488 | 0.0392 | 8.7000e-004 | 0.0401 | | 149.7561 | 149.7561 | 4.0500e-003 | | 149.8574 |
| **Total** | **0.0685** | **0.0435** | **0.5508** | **1.5000e-003** | **0.1479** | **9.4000e-004** | **0.1488** | **0.0392** | **8.7000e-004** | **0.0401** | | **149.7561** | **149.7561** | **4.0500e-003** | | **149.8574** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.8300 | 7.8446 | 7.1478 | 0.0113 | | 0.4425 | 0.4425 | | 0.4106 | 0.4106 | 0.0000 | 1,055.1823 | 1,055.1823 | 0.3016 | | 1,062.7231 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.8300** | **7.8446** | **7.1478** | **0.0113** | | **0.4425** | **0.4425** | | **0.4106** | **0.4106** | **0.0000** | **1,055.1823** | **1,055.1823** | **0.3016** | | **1,062.7231** |

## 3.6 Paving - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0685 | 0.0435 | 0.5508 | 1.5000e-003 | 0.0965 | 9.4000e-004 | 0.0974 | 0.0266 | 8.7000e-004 | 0.0275 | | 149.7561 | 149.7561 | 4.0500e-003 | | 149.8574 |
| **Total** | **0.0685** | **0.0435** | **0.5508** | **1.5000e-003** | **0.0965** | **9.4000e-004** | **0.0974** | **0.0266** | **8.7000e-004** | **0.0275** | | **149.7561** | **149.7561** | **4.0500e-003** | | **149.8574** |

## 3.7 Architectural Coating - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 0.5162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **0.7826** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

## 3.7 Architectural Coating - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 3.8000e-003 | 2.4200e-003 | 0.0306 | 8.0000e-005 | 8.2100e-003 | 5.0000e-005 | 8.2700e-003 | 2.1800e-003 | 5.0000e-005 | 2.2300e-003 | | 8.3198 | 8.3198 | 2.3000e-004 | | 8.3254 |
| **Total** | **3.8000e-003** | **2.4200e-003** | **0.0306** | **8.0000e-005** | **8.2100e-003** | **5.0000e-005** | **8.2700e-003** | **2.1800e-003** | **5.0000e-005** | **2.2300e-003** | | **8.3198** | **8.3198** | **2.3000e-004** | | **8.3254** |

### 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 | 0.5162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | 0.0000 | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **0.7826** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | **0.0000** | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

### 3.7 Architectural Coating - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 3.8000e-003 | 2.4200e-003 | 0.0306 | 8.0000e-005 | 5.3600e-003 | 5.0000e-005 | 5.4100e-003 | 1.4800e-003 | 5.0000e-005 | 1.5300e-003 | | 8.3198 | 8.3198 | 2.3000e-004 | | 8.3254 |
| **Total** | **3.8000e-003** | **2.4200e-003** | **0.0306** | **8.0000e-005** | **5.3600e-003** | **5.0000e-005** | **5.4100e-003** | **1.4800e-003** | **5.0000e-005** | **1.5300e-003** | | **8.3198** | **8.3198** | **2.3000e-004** | | **8.3254** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 5.2689 | 19.1411 | 60.2876 | 0.1827 | 15.1681 | 0.1953 | 15.3634 | 4.0494 | 0.1838 | 4.2332 | | 18,380.6793 | 18,380.6793 | 0.6564 | | 18,397.0896 |
| Unmitigated | 5.2689 | 19.1411 | 60.2876 | 0.1827 | 15.1681 | 0.1953 | 15.3634 | 4.0494 | 0.1838 | 4.2332 | | 18,380.6793 | 18,380.6793 | 0.6564 | | 18,397.0896 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 0.00 | 0.00 | 0.00 | | |
| Gasoline/Service Station | 2,682.00 | 2,682.00 | 2682.00 | 7,169,565 | 7,169,565 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 2,682.00 | 2,682.00 | 2,682.00 | 7,169,565 | 7,169,565 |

## 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 |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 24 | 15 | 61 |
| Gasoline/Service Station | 9.50 | 7.30 | 7.30 | 2.00 | 79.00 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |
| Gasoline/Service Station | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |
| Parking Lot | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |
| NaturalGas Unmitigated | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |

## 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 | | | | | |
| Convenience Market (24 Hour) | 19.9924 | 2.2000e-004 | 1.9600e-003 | 1.6500e-003 | 1.0000e-005 | | 1.5000e-004 | 1.5000e-004 | | 1.5000e-004 | 1.5000e-004 | | 2.3521 | 2.3521 | 5.0000e-005 | 4.0000e-005 | 2.3660 |
| Gasoline/Service Station | 122.439 | 1.3200e-003 | 0.0120 | 0.0101 | 7.0000e-005 | | 9.1000e-004 | 9.1000e-004 | | 9.1000e-004 | 9.1000e-004 | | 14.4046 | 14.4046 | 2.8000e-004 | 2.6000e-004 | 14.4902 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.5400e-003** | **0.0140** | **0.0117** | **8.0000e-005** | | **1.0600e-003** | **1.0600e-003** | | **1.0600e-003** | **1.0600e-003** | | **16.7567** | **16.7567** | **3.3000e-004** | **3.0000e-004** | **16.8563** |

**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 | | | | | |
| Convenience Market (24 Hour) | 0.0199924 | 2.2000e-004 | 1.9600e-003 | 1.6500e-003 | 1.0000e-005 | | 1.5000e-004 | 1.5000e-004 | | 1.5000e-004 | 1.5000e-004 | | 2.3521 | 2.3521 | 5.0000e-005 | 4.0000e-005 | 2.3660 |
| Gasoline/Service Station | 0.122439 | 1.3200e-003 | 0.0120 | 0.0101 | 7.0000e-005 | | 9.1000e-004 | 9.1000e-004 | | 9.1000e-004 | 9.1000e-004 | | 14.4046 | 14.4046 | 2.8000e-004 | 2.6000e-004 | 14.4902 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.5400e-003** | **0.0140** | **0.0117** | **8.0000e-005** | | **1.0600e-003** | **1.0600e-003** | | **1.0600e-003** | **1.0600e-003** | | **16.7567** | **16.7567** | **3.3000e-004** | **3.0000e-004** | **16.8563** |

## 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| Unmitigated | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0141 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.1037 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| **Total** | **0.1181** | **2.0000e-005** | **2.6900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.7100e-003** | **5.7100e-003** | **2.0000e-005** | | **6.0900e-003** |

### 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 | 0.0141 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.1037 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| **Total** | **0.1181** | **2.0000e-005** | **2.6900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.7100e-003** | **5.7100e-003** | **2.0000e-005** | | **6.0900e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Rotten Robbie #11 - Proposed Project

**Santa Clara County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 11.00 | Space | 0.00 | 4,400.00 | 0 |
| Convenience Market (24 Hour) | 3.08 | 1000sqft | 0.60 | 3,079.00 | 0 |
| Gasoline/Service Station | 12.00 | Pump | 0.04 | 1,694.10 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 4 | | | **Operational Year** | 2019 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 641.35 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site = 0.6 acre

Construction Phase - Building construction, paving and painting assumed to occur simultaneously

Demolition -

Vehicle Trips - Trip rate per Kimley Horn

Construction Off-road Equipment Mitigation - BAAQMD Basic Construction Measures

Rotten Robbie #11 - Proposed Project - Santa Clara County, Winter

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 40 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 5.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 100.00 |
| tblLandUse | LandUseSquareFeet | 3,080.00 | 3,079.00 |
| tblLandUse | LotAcreage | 0.10 | 0.00 |
| tblLandUse | LotAcreage | 0.07 | 0.60 |
| tblVehicleTrips | DV_TP | 27.00 | 0.00 |
| tblVehicleTrips | PB_TP | 59.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 863.10 | 0.00 |
| tblVehicleTrips | ST_TR | 168.56 | 223.50 |
| tblVehicleTrips | SU_TR | 758.45 | 0.00 |
| tblVehicleTrips | SU_TR | 168.56 | 223.50 |
| tblVehicleTrips | WD_TR | 737.99 | 0.00 |
| tblVehicleTrips | WD_TR | 168.56 | 223.50 |

## 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 | | | | | |
| 2019 | 2.6691 | 19.8182 | 17.2319 | 0.0278 | 0.8349 | 1.1797 | 1.3739 | 0.4356 | 1.0991 | 1.1509 | 0.0000 | 2,689.6020 | 2,689.6020 | 0.6898 | 0.0000 | 2,706.8476 |
| **Maximum** | **2.6691** | **19.8182** | **17.2319** | **0.0278** | **0.8349** | **1.1797** | **1.3739** | **0.4356** | **1.0991** | **1.1509** | **0.0000** | **2,689.6020** | **2,689.6020** | **0.6898** | **0.0000** | **2,706.8476** |

### 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 | | | | | |
| 2019 | 2.6691 | 19.8182 | 17.2319 | 0.0278 | 0.3923 | 1.1797 | 1.3072 | 0.2010 | 1.0991 | 1.1346 | 0.0000 | 2,689.6020 | 2,689.6020 | 0.6898 | 0.0000 | 2,706.8476 |
| **Maximum** | **2.6691** | **19.8182** | **17.2319** | **0.0278** | **0.3923** | **1.1797** | **1.3072** | **0.2010** | **1.0991** | **1.1346** | **0.0000** | **2,689.6020** | **2,689.6020** | **0.6898** | **0.0000** | **2,706.8476** |

| | ROG | NOx | 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** | **53.01** | **0.00** | **4.85** | **53.86** | **0.00** | **1.42** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| Energy | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |
| Mobile | 4.6404 | 20.4190 | 59.4862 | 0.1701 | 15.1681 | 0.1967 | 15.3648 | 4.0494 | 0.1851 | 4.2345 | | 17,120.4163 | 17,120.4163 | 0.6578 | | 17,136.8602 |
| **Total** | **4.7600** | **20.4330** | **59.5006** | **0.1702** | **15.1681** | **0.1978** | **15.3659** | **4.0494** | **0.1862** | **4.2356** | | **17,137.1787** | **17,137.1787** | **0.6581** | **3.1000e-004** | **17,153.7226** |

### 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 | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| Energy | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |
| Mobile | 4.6404 | 20.4190 | 59.4862 | 0.1701 | 15.1681 | 0.1967 | 15.3648 | 4.0494 | 0.1851 | 4.2345 | | 17,120.4163 | 17,120.4163 | 0.6578 | | 17,136.8602 |
| **Total** | **4.7600** | **20.4330** | **59.5006** | **0.1702** | **15.1681** | **0.1978** | **15.3659** | **4.0494** | **0.1862** | **4.2356** | | **17,137.1787** | **17,137.1787** | **0.6581** | **3.1000e-004** | **17,153.7226** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/20/2019 | 2/1/2019 | 5 | 10 | |
| 2 | Site Preparation | Site Preparation | 2/2/2019 | 2/4/2019 | 5 | 1 | |
| 3 | Grading | Grading | 2/5/2019 | 2/6/2019 | 5 | 2 | |
| 4 | Building Construction | Building Construction | 2/7/2019 | 6/26/2019 | 5 | 100 | |
| 5 | Paving | Paving | 2/7/2019 | 6/26/2019 | 5 | 100 | |
| 6 | Architectural Coating | Architectural Coating | 2/7/2019 | 6/26/2019 | 5 | 100 | |

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,160; Non-Residential Outdoor: 2,387; Striped Parking Area: 264 (Architectural Coating – sqft)**

**OffRoad Equipment**

Rotten Robbie #11 - Proposed Project - Santa Clara County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 11.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 3.00 | 2.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 1.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 3.2 Demolition - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2382 | 0.0000 | 0.2382 | 0.0361 | 0.0000 | 0.0361 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.2382** | **0.5371** | **0.7753** | **0.0361** | **0.5125** | **0.5485** | | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.2 Demolition - 2019

### 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 | 0.0102 | 0.3439 | 0.0707 | 8.7000e-004 | 0.0192 | 1.3300e-003 | 0.0206 | 5.2700e-003 | 1.2700e-003 | 6.5400e-003 | | 92.5395 | 92.5395 | 4.5000e-003 | | 92.6520 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0404 | 0.0295 | 0.2851 | 7.7000e-004 | 0.0822 | 5.2000e-004 | 0.0827 | 0.0218 | 4.8000e-004 | 0.0223 | | 76.4349 | 76.4349 | 2.1100e-003 | | 76.4876 |
| **Total** | **0.0506** | **0.3734** | **0.3558** | **1.6400e-003** | **0.1014** | **1.8500e-003** | **0.1032** | **0.0271** | **1.7500e-003** | **0.0288** | | **168.9744** | **168.9744** | **6.6100e-003** | | **169.1396** |

### 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 | | | | | 0.1072 | 0.0000 | 0.1072 | 0.0162 | 0.0000 | 0.0162 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | 0.0000 | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.1072** | **0.5371** | **0.6443** | **0.0162** | **0.5125** | **0.5287** | **0.0000** | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.2 Demolition - 2019

**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 | 0.0102 | 0.3439 | 0.0707 | 8.7000e-004 | 0.0134 | 1.3300e-003 | 0.0147 | 3.8400e-003 | 1.2700e-003 | 5.1100e-003 | | 92.5395 | 92.5395 | 4.5000e-003 | | 92.6520 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0404 | 0.0295 | 0.2851 | 7.7000e-004 | 0.0536 | 5.2000e-004 | 0.0541 | 0.0148 | 4.8000e-004 | 0.0153 | | 76.4349 | 76.4349 | 2.1100e-003 | | 76.4876 |
| **Total** | **0.0506** | **0.3734** | **0.3558** | **1.6400e-003** | **0.0670** | **1.8500e-003** | **0.0688** | **0.0186** | **1.7500e-003** | **0.0204** | | **168.9744** | **168.9744** | **6.6100e-003** | | **169.1396** |

## 3.3 Site Preparation - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7195 | 8.9170 | 4.1407 | 9.7500e-003 | | 0.3672 | 0.3672 | | 0.3378 | 0.3378 | | 965.1690 | 965.1690 | 0.3054 | | 972.8032 |
| **Total** | **0.7195** | **8.9170** | **4.1407** | **9.7500e-003** | **0.5303** | **0.3672** | **0.8975** | **0.0573** | **0.3378** | **0.3951** | | **965.1690** | **965.1690** | **0.3054** | | **972.8032** |

## 3.3 Site Preparation - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0202 | 0.0148 | 0.1425 | 3.8000e-004 | 0.0411 | 2.6000e-004 | 0.0413 | 0.0109 | 2.4000e-004 | 0.0111 | | 38.2174 | 38.2174 | 1.0600e-003 | | 38.2438 |
| **Total** | **0.0202** | **0.0148** | **0.1425** | **3.8000e-004** | **0.0411** | **2.6000e-004** | **0.0413** | **0.0109** | **2.4000e-004** | **0.0111** | | **38.2174** | **38.2174** | **1.0600e-003** | | **38.2438** |

### 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7195 | 8.9170 | 4.1407 | 9.7500e-003 | | 0.3672 | 0.3672 | | 0.3378 | 0.3378 | 0.0000 | 965.1690 | 965.1690 | 0.3054 | | 972.8032 |
| **Total** | **0.7195** | **8.9170** | **4.1407** | **9.7500e-003** | **0.2386** | **0.3672** | **0.6058** | **0.0258** | **0.3378** | **0.3636** | **0.0000** | **965.1690** | **965.1690** | **0.3054** | | **972.8032** |

## 3.3 Site Preparation - 2019

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0202 | 0.0148 | 0.1425 | 3.8000e-004 | 0.0268 | 2.6000e-004 | 0.0271 | 7.3900e-003 | 2.4000e-004 | 7.6300e-003 | | 38.2174 | 38.2174 | 1.0600e-003 | | 38.2438 |
| **Total** | **0.0202** | **0.0148** | **0.1425** | **3.8000e-004** | **0.0268** | **2.6000e-004** | **0.0271** | **7.3900e-003** | **2.4000e-004** | **7.6300e-003** | | **38.2174** | **38.2174** | **1.0600e-003** | | **38.2438** |

## 3.4 Grading - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7528 | 0.0000 | 0.7528 | 0.4138 | 0.0000 | 0.4138 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.7528** | **0.5371** | **1.2898** | **0.4138** | **0.5125** | **0.9263** | | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.4 Grading - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0404 | 0.0295 | 0.2851 | 7.7000e-004 | 0.0822 | 5.2000e-004 | 0.0827 | 0.0218 | 4.8000e-004 | 0.0223 | | 76.4349 | 76.4349 | 2.1100e-003 | | 76.4876 |
| **Total** | **0.0404** | **0.0295** | **0.2851** | **7.7000e-004** | **0.0822** | **5.2000e-004** | **0.0827** | **0.0218** | **4.8000e-004** | **0.0223** | | **76.4349** | **76.4349** | **2.1100e-003** | | **76.4876** |

### 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 | | | | | 0.3387 | 0.0000 | 0.3387 | 0.1862 | 0.0000 | 0.1862 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.9530 | 8.6039 | 7.6917 | 0.0120 | | 0.5371 | 0.5371 | | 0.5125 | 0.5125 | 0.0000 | 1,159.6570 | 1,159.6570 | 0.2211 | | 1,165.1847 |
| **Total** | **0.9530** | **8.6039** | **7.6917** | **0.0120** | **0.3387** | **0.5371** | **0.8758** | **0.1862** | **0.5125** | **0.6987** | **0.0000** | **1,159.6570** | **1,159.6570** | **0.2211** | | **1,165.1847** |

## 3.4 Grading - 2019

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0404 | 0.0295 | 0.2851 | 7.7000e-004 | 0.0536 | 5.2000e-004 | 0.0541 | 0.0148 | 4.8000e-004 | 0.0153 | | 76.4349 | 76.4349 | 2.1100e-003 | | 76.4876 |
| **Total** | **0.0404** | **0.0295** | **0.2851** | **7.7000e-004** | **0.0536** | **5.2000e-004** | **0.0541** | **0.0148** | **4.8000e-004** | **0.0153** | | **76.4349** | **76.4349** | **2.1100e-003** | | **76.4876** |

## 3.5 Building Construction - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9576 | 9.8207 | 7.5432 | 0.0114 | | 0.6054 | 0.6054 | | 0.5569 | 0.5569 | | 1,127.6696 | 1,127.6696 | 0.3568 | | 1,136.5892 |
| **Total** | **0.9576** | **9.8207** | **7.5432** | **0.0114** | | **0.6054** | **0.6054** | | **0.5569** | **0.5569** | | **1,127.6696** | **1,127.6696** | **0.3568** | | **1,136.5892** |

## 3.5 Building Construction - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0101 | 0.2525 | 0.0725 | 5.4000e-004 | 0.0135 | 1.8300e-003 | 0.0154 | 3.9000e-003 | 1.7500e-003 | 5.6500e-003 | | 57.1453 | 57.1453 | 3.0000e-003 | | 57.2202 |
| Worker | 0.0121 | 8.8600e-003 | 0.0855 | 2.3000e-004 | 0.0246 | 1.6000e-004 | 0.0248 | 6.5400e-003 | 1.4000e-004 | 6.6800e-003 | | 22.9305 | 22.9305 | 6.3000e-004 | | 22.9463 |
| **Total** | **0.0222** | **0.2614** | **0.1580** | **7.7000e-004** | **0.0382** | **1.9900e-003** | **0.0402** | **0.0104** | **1.8900e-003** | **0.0123** | | **80.0758** | **80.0758** | **3.6300e-003** | | **80.1665** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9576 | 9.8207 | 7.5432 | 0.0114 | | 0.6054 | 0.6054 | | 0.5569 | 0.5569 | 0.0000 | 1,127.6696 | 1,127.6696 | 0.3568 | | 1,136.5892 |
| **Total** | **0.9576** | **9.8207** | **7.5432** | **0.0114** | | **0.6054** | **0.6054** | | **0.5569** | **0.5569** | **0.0000** | **1,127.6696** | **1,127.6696** | **0.3568** | | **1,136.5892** |

## 3.5 Building Construction - 2019

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0101 | 0.2525 | 0.0725 | 5.4000e-004 | 9.6800e-003 | 1.8300e-003 | 0.0115 | 2.9500e-003 | 1.7500e-003 | 4.7000e-003 | | 57.1453 | 57.1453 | 3.0000e-003 | | 57.2202 |
| Worker | 0.0121 | 8.8600e-003 | 0.0855 | 2.3000e-004 | 0.0161 | 1.6000e-004 | 0.0162 | 4.4300e-003 | 1.4000e-004 | 4.5800e-003 | | 22.9305 | 22.9305 | 6.3000e-004 | | 22.9463 |
| **Total** | **0.0222** | **0.2614** | **0.1580** | **7.7000e-004** | **0.0258** | **1.9900e-003** | **0.0277** | **7.3800e-003** | **1.8900e-003** | **9.2800e-003** | | **80.0758** | **80.0758** | **3.6300e-003** | | **80.1665** |

## 3.6 Paving - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.8300 | 7.8446 | 7.1478 | 0.0113 | | 0.4425 | 0.4425 | | 0.4106 | 0.4106 | | 1,055.1823 | 1,055.1823 | 0.3016 | | 1,062.7231 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.8300** | **7.8446** | **7.1478** | **0.0113** | | **0.4425** | **0.4425** | | **0.4106** | **0.4106** | | **1,055.1823** | **1,055.1823** | **0.3016** | | **1,062.7231** |

## 3.6 Paving - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0727 | 0.0532 | 0.5131 | 1.3800e-003 | 0.1479 | 9.4000e-004 | 0.1488 | 0.0392 | 8.7000e-004 | 0.0401 | | 137.5827 | 137.5827 | 3.8000e-003 | | 137.6777 |
| **Total** | **0.0727** | **0.0532** | **0.5131** | **1.3800e-003** | **0.1479** | **9.4000e-004** | **0.1488** | **0.0392** | **8.7000e-004** | **0.0401** | | **137.5827** | **137.5827** | **3.8000e-003** | | **137.6777** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.8300 | 7.8446 | 7.1478 | 0.0113 | | 0.4425 | 0.4425 | | 0.4106 | 0.4106 | 0.0000 | 1,055.1823 | 1,055.1823 | 0.3016 | | 1,062.7231 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.8300** | **7.8446** | **7.1478** | **0.0113** | | **0.4425** | **0.4425** | | **0.4106** | **0.4106** | **0.0000** | **1,055.1823** | **1,055.1823** | **0.3016** | | **1,062.7231** |

## 3.6 Paving - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0727 | 0.0532 | 0.5131 | 1.3800e-003 | 0.0965 | 9.4000e-004 | 0.0974 | 0.0266 | 8.7000e-004 | 0.0275 | | 137.5827 | 137.5827 | 3.8000e-003 | | 137.6777 |
| **Total** | **0.0727** | **0.0532** | **0.5131** | **1.3800e-003** | **0.0965** | **9.4000e-004** | **0.0974** | **0.0266** | **8.7000e-004** | **0.0275** | | **137.5827** | **137.5827** | **3.8000e-003** | | **137.6777** |

## 3.7 Architectural Coating - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 0.5162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **0.7826** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

## 3.7 Architectural Coating - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 4.0400e-003 | 2.9500e-003 | 0.0285 | 8.0000e-005 | 8.2100e-003 | 5.0000e-005 | 8.2700e-003 | 2.1800e-003 | 5.0000e-005 | 2.2300e-003 | | 7.6435 | 7.6435 | 2.1000e-004 | | 7.6488 |
| **Total** | **4.0400e-003** | **2.9500e-003** | **0.0285** | **8.0000e-005** | **8.2100e-003** | **5.0000e-005** | **8.2700e-003** | **2.1800e-003** | **5.0000e-005** | **2.2300e-003** | | **7.6435** | **7.6435** | **2.1000e-004** | | **7.6488** |

### 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 | 0.5162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | 0.0000 | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **0.7826** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | **0.0000** | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

### 3.7 Architectural Coating - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 4.0400e-003 | 2.9500e-003 | 0.0285 | 8.0000e-005 | 5.3600e-003 | 5.0000e-005 | 5.4100e-003 | 1.4800e-003 | 5.0000e-005 | 1.5300e-003 | | 7.6435 | 7.6435 | 2.1000e-004 | | 7.6488 |
| **Total** | **4.0400e-003** | **2.9500e-003** | **0.0285** | **8.0000e-005** | **5.3600e-003** | **5.0000e-005** | **5.4100e-003** | **1.4800e-003** | **5.0000e-005** | **1.5300e-003** | | **7.6435** | **7.6435** | **2.1000e-004** | | **7.6488** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 4.6404 | 20.4190 | 59.4862 | 0.1701 | 15.1681 | 0.1967 | 15.3648 | 4.0494 | 0.1851 | 4.2345 | | 17,120.4163 | 17,120.4163 | 0.6578 | | 17,136.8602 |
| Unmitigated | 4.6404 | 20.4190 | 59.4862 | 0.1701 | 15.1681 | 0.1967 | 15.3648 | 4.0494 | 0.1851 | 4.2345 | | 17,120.4163 | 17,120.4163 | 0.6578 | | 17,136.8602 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 0.00 | 0.00 | 0.00 | | |
| Gasoline/Service Station | 2,682.00 | 2,682.00 | 2682.00 | 7,169,565 | 7,169,565 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 2,682.00 | 2,682.00 | 2,682.00 | 7,169,565 | 7,169,565 |

## 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 |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 24 | 15 | 61 |
| Gasoline/Service Station | 9.50 | 7.30 | 7.30 | 2.00 | 79.00 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |
| Gasoline/Service Station | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |
| Parking Lot | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |
| NaturalGas Unmitigated | 1.5400e-003 | 0.0140 | 0.0117 | 8.0000e-005 | | 1.0600e-003 | 1.0600e-003 | | 1.0600e-003 | 1.0600e-003 | | 16.7567 | 16.7567 | 3.2000e-004 | 3.1000e-004 | 16.8563 |

## 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 | | | | | |
| Convenience Market (24 Hour) | 19.9924 | 2.2000e-004 | 1.9600e-003 | 1.6500e-003 | 1.0000e-005 | | 1.5000e-004 | 1.5000e-004 | | 1.5000e-004 | 1.5000e-004 | | 2.3521 | 2.3521 | 5.0000e-005 | 4.0000e-005 | 2.3660 |
| Gasoline/Service Station | 122.439 | 1.3200e-003 | 0.0120 | 0.0101 | 7.0000e-005 | | 9.1000e-004 | 9.1000e-004 | | 9.1000e-004 | 9.1000e-004 | | 14.4046 | 14.4046 | 2.8000e-004 | 2.6000e-004 | 14.4902 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.5400e-003** | **0.0140** | **0.0117** | **8.0000e-005** | | **1.0600e-003** | **1.0600e-003** | | **1.0600e-003** | **1.0600e-003** | | **16.7567** | **16.7567** | **3.3000e-004** | **3.0000e-004** | **16.8563** |

### 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 | | | | | |
| Convenience Market (24 Hour) | 0.0199924 | 2.2000e-004 | 1.9600e-003 | 1.6500e-003 | 1.0000e-005 | | 1.5000e-004 | 1.5000e-004 | | 1.5000e-004 | 1.5000e-004 | | 2.3521 | 2.3521 | 5.0000e-005 | 4.0000e-005 | 2.3660 |
| Gasoline/Service Station | 0.122439 | 1.3200e-003 | 0.0120 | 0.0101 | 7.0000e-005 | | 9.1000e-004 | 9.1000e-004 | | 9.1000e-004 | 9.1000e-004 | | 14.4046 | 14.4046 | 2.8000e-004 | 2.6000e-004 | 14.4902 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.5400e-003** | **0.0140** | **0.0117** | **8.0000e-005** | | **1.0600e-003** | **1.0600e-003** | | **1.0600e-003** | **1.0600e-003** | | **16.7567** | **16.7567** | **3.3000e-004** | **3.0000e-004** | **16.8563** |

## 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| Unmitigated | 0.1181 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0141 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.1037 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| **Total** | **0.1181** | **2.0000e-005** | **2.6900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.7100e-003** | **5.7100e-003** | **2.0000e-005** | | **6.0900e-003** |

### 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 | 0.0141 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.1037 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.7100e-003 | 5.7100e-003 | 2.0000e-005 | | 6.0900e-003 |
| **Total** | **0.1181** | **2.0000e-005** | **2.6900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.7100e-003** | **5.7100e-003** | **2.0000e-005** | | **6.0900e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Rotten Robbie #11 - Proposed Project

**Santa Clara County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 11.00 | Space | 0.00 | 4,400.00 | 0 |
| Convenience Market (24 Hour) | 3.08 | 1000sqft | 0.60 | 3,079.00 | 0 |
| Gasoline/Service Station | 12.00 | Pump | 0.04 | 1,694.10 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 4 | | | **Operational Year** | 2019 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 641.35 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site = 0.6 acre

Construction Phase - Building construction, paving and painting assumed to occur simultaneously

Demolition -

Vehicle Trips - Trip rate per Kimley Horn

Construction Off-road Equipment Mitigation - BAAQMD Basic Construction Measures

Rotten Robbie #11 - Proposed Project - Santa Clara County, Annual

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 40 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 5.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 100.00 |
| tblLandUse | LandUseSquareFeet | 3,080.00 | 3,079.00 |
| tblLandUse | LotAcreage | 0.10 | 0.00 |
| tblLandUse | LotAcreage | 0.07 | 0.60 |
| tblVehicleTrips | DV_TP | 27.00 | 0.00 |
| tblVehicleTrips | PB_TP | 59.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 863.10 | 0.00 |
| tblVehicleTrips | ST_TR | 168.56 | 223.50 |
| tblVehicleTrips | SU_TR | 758.45 | 0.00 |
| tblVehicleTrips | SU_TR | 168.56 | 223.50 |
| tblVehicleTrips | WD_TR | 737.99 | 0.00 |
| tblVehicleTrips | WD_TR | 168.56 | 223.50 |

## 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 | | | | | |
| 2019 | 0.1394 | 1.0486 | 0.9110 | 1.4800e-003 | 0.0122 | 0.0624 | 0.0746 | 3.2900e-003 | 0.0582 | 0.0615 | 0.0000 | 129.7448 | 129.7448 | 0.0327 | 0.0000 | 130.5612 |
| **Maximum** | **0.1394** | **1.0486** | **0.9110** | **1.4800e-003** | **0.0122** | **0.0624** | **0.0746** | **3.2900e-003** | **0.0582** | **0.0615** | **0.0000** | **129.7448** | **129.7448** | **0.0327** | **0.0000** | **130.5612** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2019 | 0.1394 | 1.0486 | 0.9110 | 1.4800e-003 | 7.5600e-003 | 0.0624 | 0.0700 | 2.1100e-003 | 0.0582 | 0.0603 | 0.0000 | 129.7447 | 129.7447 | 0.0327 | 0.0000 | 130.5611 |
| **Maximum** | **0.1394** | **1.0486** | **0.9110** | **1.4800e-003** | **7.5600e-003** | **0.0624** | **0.0700** | **2.1100e-003** | **0.0582** | **0.0603** | **0.0000** | **129.7447** | **129.7447** | **0.0327** | **0.0000** | **130.5611** |

| | ROG | NOx | 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** | **37.93** | **0.00** | **6.19** | **35.87** | **0.00** | **1.92** | **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 | 11-20-2018 | 2-19-2019 | 0.1680 | 0.1680 |
| 2 | 2-20-2019 | 5-19-2019 | 0.7144 | 0.7144 |
| 3 | 5-20-2019 | 8-19-2019 | 0.3049 | 0.3049 |
| | | Highest | 0.7144 | 0.7144 |

## 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 | 0.0215 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.7000e-004 | 4.7000e-004 | 0.0000 | 0.0000 | 5.0000e-004 |
| Energy | 2.8000e-004 | 2.5500e-003 | 2.1400e-003 | 2.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 16.8683 | 16.8683 | 6.9000e-004 | 1.8000e-004 | 16.9400 |
| Mobile | 0.8446 | 3.6234 | 10.4109 | 0.0313 | 2.6665 | 0.0356 | 2.7021 | 0.7139 | 0.0335 | 0.7474 | 0.0000 | 2,858.3492 | 2,858.3492 | 0.1064 | 0.0000 | 2,861.0085 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.1931 | 0.0000 | 3.1931 | 0.1887 | 0.0000 | 7.9106 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.1229 | 0.8519 | 0.9748 | 0.0127 | 3.1000e-004 | 1.3827 |
| **Total** | **0.8664** | **3.6260** | **10.4133** | **0.0313** | **2.6665** | **0.0358** | **2.7023** | **0.7139** | **0.0337** | **0.7476** | **3.3160** | **2,876.0698** | **2,879.3858** | **0.3084** | **4.9000e-004** | **2,887.2423** |

## 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 | 0.0215 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.7000e-004 | 4.7000e-004 | 0.0000 | 0.0000 | 5.0000e-004 |
| Energy | 2.8000e-004 | 2.5500e-003 | 2.1400e-003 | 2.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 16.8683 | 16.8683 | 6.9000e-004 | 1.8000e-004 | 16.9400 |
| Mobile | 0.8446 | 3.6234 | 10.4109 | 0.0313 | 2.6665 | 0.0356 | 2.7021 | 0.7139 | 0.0335 | 0.7474 | 0.0000 | 2,858.3492 | 2,858.3492 | 0.1064 | 0.0000 | 2,861.0085 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.1931 | 0.0000 | 3.1931 | 0.1887 | 0.0000 | 7.9106 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.1229 | 0.8519 | 0.9748 | 0.0127 | 3.1000e-004 | 1.3827 |
| **Total** | **0.8664** | **3.6260** | **10.4133** | **0.0313** | **2.6665** | **0.0358** | **2.7023** | **0.7139** | **0.0337** | **0.7476** | **3.3160** | **2,876.0698** | **2,879.3858** | **0.3084** | **4.9000e-004** | **2,887.2423** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/20/2019 | 2/1/2019 | 5 | 10 | |
| 2 | Site Preparation | Site Preparation | 2/2/2019 | 2/4/2019 | 5 | 1 | |
| 3 | Grading | Grading | 2/5/2019 | 2/6/2019 | 5 | 2 | |
| 4 | Building Construction | Building Construction | 2/7/2019 | 6/26/2019 | 5 | 100 | |
| 5 | Paving | Paving | 2/7/2019 | 6/26/2019 | 5 | 100 | |
| 6 | Architectural Coating | Architectural Coating | 2/7/2019 | 6/26/2019 | 5 | 100 | |

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,160; Non-Residential Outdoor: 2,387; Striped Parking Area: 264 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 4 | 10.00 | 0.00 | 11.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 3.00 | 2.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 1.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 3.2 Demolition - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.1900e-003 | 0.0000 | 1.1900e-003 | 1.8000e-004 | 0.0000 | 1.8000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.7700e-003 | 0.0430 | 0.0385 | 6.0000e-005 | | 2.6900e-003 | 2.6900e-003 | | 2.5600e-003 | 2.5600e-003 | 0.0000 | 5.2601 | 5.2601 | 1.0000e-003 | 0.0000 | 5.2852 |
| **Total** | **4.7700e-003** | **0.0430** | **0.0385** | **6.0000e-005** | **1.1900e-003** | **2.6900e-003** | **3.8800e-003** | **1.8000e-004** | **2.5600e-003** | **2.7400e-003** | **0.0000** | **5.2601** | **5.2601** | **1.0000e-003** | **0.0000** | **5.2852** |

## 3.2 Demolition - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 5.0000e-005 | 1.7100e-003 | 3.4000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 1.0000e-004 | 3.0000e-005 | 1.0000e-005 | 3.0000e-005 | 0.0000 | 0.4239 | 0.4239 | 2.0000e-005 | 0.0000 | 0.4244 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.8000e-004 | 1.4000e-004 | 1.4000e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3510 | 0.3510 | 1.0000e-005 | 0.0000 | 0.3513 |
| **Total** | **2.3000e-004** | **1.8500e-003** | **1.7400e-003** | **0.0000** | **4.9000e-004** | **1.0000e-005** | **5.0000e-004** | **1.4000e-004** | **1.0000e-005** | **1.4000e-004** | **0.0000** | **0.7749** | **0.7749** | **3.0000e-005** | **0.0000** | **0.7756** |

### 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 | | | | | 5.4000e-004 | 0.0000 | 5.4000e-004 | 8.0000e-005 | 0.0000 | 8.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.7700e-003 | 0.0430 | 0.0385 | 6.0000e-005 | | 2.6900e-003 | 2.6900e-003 | | 2.5600e-003 | 2.5600e-003 | 0.0000 | 5.2601 | 5.2601 | 1.0000e-003 | 0.0000 | 5.2852 |
| **Total** | **4.7700e-003** | **0.0430** | **0.0385** | **6.0000e-005** | **5.4000e-004** | **2.6900e-003** | **3.2300e-003** | **8.0000e-005** | **2.5600e-003** | **2.6400e-003** | **0.0000** | **5.2601** | **5.2601** | **1.0000e-003** | **0.0000** | **5.2852** |

## 3.2 Demolition - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 5.0000e-005 | 1.7100e-003 | 3.4000e-004 | 0.0000 | 7.0000e-005 | 1.0000e-005 | 7.0000e-005 | 2.0000e-005 | 1.0000e-005 | 3.0000e-005 | 0.0000 | 0.4239 | 0.4239 | 2.0000e-005 | 0.0000 | 0.4244 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.8000e-004 | 1.4000e-004 | 1.4000e-003 | 0.0000 | 2.6000e-004 | 0.0000 | 2.6000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.3510 | 0.3510 | 1.0000e-005 | 0.0000 | 0.3513 |
| **Total** | **2.3000e-004** | **1.8500e-003** | **1.7400e-003** | **0.0000** | **3.3000e-004** | **1.0000e-005** | **3.3000e-004** | **9.0000e-005** | **1.0000e-005** | **1.0000e-004** | **0.0000** | **0.7749** | **0.7749** | **3.0000e-005** | **0.0000** | **0.7756** |

## 3.3 Site Preparation - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 2.7000e-004 | 0.0000 | 2.7000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.6000e-004 | 4.4600e-003 | 2.0700e-003 | 0.0000 | | 1.8000e-004 | 1.8000e-004 | | 1.7000e-004 | 1.7000e-004 | 0.0000 | 0.4378 | 0.4378 | 1.4000e-004 | 0.0000 | 0.4413 |
| **Total** | **3.6000e-004** | **4.4600e-003** | **2.0700e-003** | **0.0000** | **2.7000e-004** | **1.8000e-004** | **4.5000e-004** | **3.0000e-005** | **1.7000e-004** | **2.0000e-004** | **0.0000** | **0.4378** | **0.4378** | **1.4000e-004** | **0.0000** | **0.4413** |

## 3.3 Site Preparation - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.0000e-005 | 1.0000e-005 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0176 | 0.0176 | 0.0000 | 0.0000 | 0.0176 |
| **Total** | **1.0000e-005** | **1.0000e-005** | **7.0000e-005** | **0.0000** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0176** | **0.0176** | **0.0000** | **0.0000** | **0.0176** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.2000e-004 | 0.0000 | 1.2000e-004 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.6000e-004 | 4.4600e-003 | 2.0700e-003 | 0.0000 | | 1.8000e-004 | 1.8000e-004 | | 1.7000e-004 | 1.7000e-004 | 0.0000 | 0.4378 | 0.4378 | 1.4000e-004 | 0.0000 | 0.4413 |
| **Total** | **3.6000e-004** | **4.4600e-003** | **2.0700e-003** | **0.0000** | **1.2000e-004** | **1.8000e-004** | **3.0000e-004** | **1.0000e-005** | **1.7000e-004** | **1.8000e-004** | **0.0000** | **0.4378** | **0.4378** | **1.4000e-004** | **0.0000** | **0.4413** |

## 3.3 Site Preparation - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.0000e-005 | 1.0000e-005 | 7.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0176 | 0.0176 | 0.0000 | 0.0000 | 0.0176 |
| **Total** | **1.0000e-005** | **1.0000e-005** | **7.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0176** | **0.0176** | **0.0000** | **0.0000** | **0.0176** |

## 3.4 Grading - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 7.5000e-004 | 0.0000 | 7.5000e-004 | 4.1000e-004 | 0.0000 | 4.1000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.5000e-004 | 8.6000e-003 | 7.6900e-003 | 1.0000e-005 | | 5.4000e-004 | 5.4000e-004 | | 5.1000e-004 | 5.1000e-004 | 0.0000 | 1.0520 | 1.0520 | 2.0000e-004 | 0.0000 | 1.0570 |
| **Total** | **9.5000e-004** | **8.6000e-003** | **7.6900e-003** | **1.0000e-005** | **7.5000e-004** | **5.4000e-004** | **1.2900e-003** | **4.1000e-004** | **5.1000e-004** | **9.2000e-004** | **0.0000** | **1.0520** | **1.0520** | **2.0000e-004** | **0.0000** | **1.0570** |

## 3.4 Grading - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.0000e-005 | 3.0000e-005 | 2.8000e-004 | 0.0000 | 8.0000e-005 | 0.0000 | 8.0000e-005 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0702 | 0.0702 | 0.0000 | 0.0000 | 0.0703 |
| **Total** | **4.0000e-005** | **3.0000e-005** | **2.8000e-004** | **0.0000** | **8.0000e-005** | **0.0000** | **8.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **0.0000** | **0.0702** | **0.0702** | **0.0000** | **0.0000** | **0.0703** |

### 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 | | | | | 3.4000e-004 | 0.0000 | 3.4000e-004 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.5000e-004 | 8.6000e-003 | 7.6900e-003 | 1.0000e-005 | | 5.4000e-004 | 5.4000e-004 | | 5.1000e-004 | 5.1000e-004 | 0.0000 | 1.0520 | 1.0520 | 2.0000e-004 | 0.0000 | 1.0570 |
| **Total** | **9.5000e-004** | **8.6000e-003** | **7.6900e-003** | **1.0000e-005** | **3.4000e-004** | **5.4000e-004** | **8.8000e-004** | **1.9000e-004** | **5.1000e-004** | **7.0000e-004** | **0.0000** | **1.0520** | **1.0520** | **2.0000e-004** | **0.0000** | **1.0570** |

## 3.4 Grading - 2019

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.0000e-005 | 3.0000e-005 | 2.8000e-004 | 0.0000 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0702 | 0.0702 | 0.0000 | 0.0000 | 0.0703 |
| **Total** | **4.0000e-005** | **3.0000e-005** | **2.8000e-004** | **0.0000** | **5.0000e-005** | **0.0000** | **5.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0702** | **0.0702** | **0.0000** | **0.0000** | **0.0703** |

## 3.5 Building Construction - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0479 | 0.4910 | 0.3772 | 5.7000e-004 | | 0.0303 | 0.0303 | | 0.0279 | 0.0279 | 0.0000 | 51.1502 | 51.1502 | 0.0162 | 0.0000 | 51.5548 |
| **Total** | **0.0479** | **0.4910** | **0.3772** | **5.7000e-004** | | **0.0303** | **0.0303** | | **0.0279** | **0.0279** | **0.0000** | **51.1502** | **51.1502** | **0.0162** | **0.0000** | **51.5548** |

## 3.5 Building Construction - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 4.9000e-004 | 0.0126 | 3.3900e-003 | 3.0000e-005 | 6.6000e-004 | 9.0000e-005 | 7.5000e-004 | 1.9000e-004 | 9.0000e-005 | 2.8000e-004 | 0.0000 | 2.6305 | 2.6305 | 1.3000e-004 | 0.0000 | 2.6338 |
| Worker | 5.4000e-004 | 4.1000e-004 | 4.1900e-003 | 1.0000e-005 | 1.1900e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 1.0000e-005 | 3.2000e-004 | 0.0000 | 1.0531 | 1.0531 | 3.0000e-005 | 0.0000 | 1.0538 |
| **Total** | **1.0300e-003** | **0.0130** | **7.5800e-003** | **4.0000e-005** | **1.8500e-003** | **1.0000e-004** | **1.9500e-003** | **5.1000e-004** | **1.0000e-004** | **6.0000e-004** | **0.0000** | **3.6836** | **3.6836** | **1.6000e-004** | **0.0000** | **3.6876** |

### 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 | 0.0479 | 0.4910 | 0.3772 | 5.7000e-004 | | 0.0303 | 0.0303 | | 0.0279 | 0.0279 | 0.0000 | 51.1502 | 51.1502 | 0.0162 | 0.0000 | 51.5548 |
| **Total** | **0.0479** | **0.4910** | **0.3772** | **5.7000e-004** | | **0.0303** | **0.0303** | | **0.0279** | **0.0279** | **0.0000** | **51.1502** | **51.1502** | **0.0162** | **0.0000** | **51.5548** |

## 3.5 Building Construction - 2019

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 4.9000e-004 | 0.0126 | 3.3900e-003 | 3.0000e-005 | 4.7000e-004 | 9.0000e-005 | 5.6000e-004 | 1.4000e-004 | 9.0000e-005 | 2.3000e-004 | 0.0000 | 2.6305 | 2.6305 | 1.3000e-004 | 0.0000 | 2.6338 |
| Worker | 5.4000e-004 | 4.1000e-004 | 4.1900e-003 | 1.0000e-005 | 7.8000e-004 | 1.0000e-005 | 7.9000e-004 | 2.2000e-004 | 1.0000e-005 | 2.2000e-004 | 0.0000 | 1.0531 | 1.0531 | 3.0000e-005 | 0.0000 | 1.0538 |
| **Total** | **1.0300e-003** | **0.0130** | **7.5800e-003** | **4.0000e-005** | **1.2500e-003** | **1.0000e-004** | **1.3500e-003** | **3.6000e-004** | **1.0000e-004** | **4.5000e-004** | **0.0000** | **3.6836** | **3.6836** | **1.6000e-004** | **0.0000** | **3.6876** |

## 3.6 Paving - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0415 | 0.3922 | 0.3574 | 5.6000e-004 | | 0.0221 | 0.0221 | | 0.0205 | 0.0205 | 0.0000 | 47.8623 | 47.8623 | 0.0137 | 0.0000 | 48.2043 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0415** | **0.3922** | **0.3574** | **5.6000e-004** | | **0.0221** | **0.0221** | | **0.0205** | **0.0205** | **0.0000** | **47.8623** | **47.8623** | **0.0137** | **0.0000** | **48.2043** |

## 3.6 Paving - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.2700e-003 | 2.4300e-003 | 0.0251 | 7.0000e-005 | 7.1400e-003 | 5.0000e-005 | 7.1900e-003 | 1.9000e-003 | 4.0000e-005 | 1.9400e-003 | 0.0000 | 6.3188 | 6.3188 | 1.7000e-004 | 0.0000 | 6.3231 |
| **Total** | **3.2700e-003** | **2.4300e-003** | **0.0251** | **7.0000e-005** | **7.1400e-003** | **5.0000e-005** | **7.1900e-003** | **1.9000e-003** | **4.0000e-005** | **1.9400e-003** | **0.0000** | **6.3188** | **6.3188** | **1.7000e-004** | **0.0000** | **6.3231** |

### 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 | 0.0415 | 0.3922 | 0.3574 | 5.6000e-004 | | 0.0221 | 0.0221 | | 0.0205 | 0.0205 | 0.0000 | 47.8622 | 47.8622 | 0.0137 | 0.0000 | 48.2043 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0415** | **0.3922** | **0.3574** | **5.6000e-004** | | **0.0221** | **0.0221** | | **0.0205** | **0.0205** | **0.0000** | **47.8622** | **47.8622** | **0.0137** | **0.0000** | **48.2043** |

## 3.6 Paving - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.2700e-003 | 2.4300e-003 | 0.0251 | 7.0000e-005 | 4.6700e-003 | 5.0000e-005 | 4.7200e-003 | 1.2900e-003 | 4.0000e-005 | 1.3400e-003 | 0.0000 | 6.3188 | 6.3188 | 1.7000e-004 | 0.0000 | 6.3231 |
| **Total** | **3.2700e-003** | **2.4300e-003** | **0.0251** | **7.0000e-005** | **4.6700e-003** | **5.0000e-005** | **4.7200e-003** | **1.2900e-003** | **4.0000e-005** | **1.3400e-003** | **0.0000** | **6.3188** | **6.3188** | **1.7000e-004** | **0.0000** | **6.3231** |

## 3.7 Architectural Coating - 2019

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.0258 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0133 | 0.0918 | 0.0921 | 1.5000e-004 | | 6.4400e-003 | 6.4400e-003 | | 6.4400e-003 | 6.4400e-003 | 0.0000 | 12.7663 | 12.7663 | 1.0800e-003 | 0.0000 | 12.7932 |
| **Total** | **0.0391** | **0.0918** | **0.0921** | **1.5000e-004** | | **6.4400e-003** | **6.4400e-003** | | **6.4400e-003** | **6.4400e-003** | **0.0000** | **12.7663** | **12.7663** | **1.0800e-003** | **0.0000** | **12.7932** |

## 3.7 Architectural Coating - 2019

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.8000e-004 | 1.4000e-004 | 1.4000e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3510 | 0.3510 | 1.0000e-005 | 0.0000 | 0.3513 |
| **Total** | **1.8000e-004** | **1.4000e-004** | **1.4000e-003** | **0.0000** | **4.0000e-004** | **0.0000** | **4.0000e-004** | **1.1000e-004** | **0.0000** | **1.1000e-004** | **0.0000** | **0.3510** | **0.3510** | **1.0000e-005** | **0.0000** | **0.3513** |

### 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 | 0.0258 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0133 | 0.0918 | 0.0921 | 1.5000e-004 | | 6.4400e-003 | 6.4400e-003 | | 6.4400e-003 | 6.4400e-003 | 0.0000 | 12.7663 | 12.7663 | 1.0800e-003 | 0.0000 | 12.7932 |
| **Total** | **0.0391** | **0.0918** | **0.0921** | **1.5000e-004** | | **6.4400e-003** | **6.4400e-003** | | **6.4400e-003** | **6.4400e-003** | **0.0000** | **12.7663** | **12.7663** | **1.0800e-003** | **0.0000** | **12.7932** |

### 3.7 Architectural Coating - 2019

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.8000e-004 | 1.4000e-004 | 1.4000e-003 | 0.0000 | 2.6000e-004 | 0.0000 | 2.6000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.3510 | 0.3510 | 1.0000e-005 | 0.0000 | 0.3513 |
| **Total** | **1.8000e-004** | **1.4000e-004** | **1.4000e-003** | **0.0000** | **2.6000e-004** | **0.0000** | **2.6000e-004** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **0.0000** | **0.3510** | **0.3510** | **1.0000e-005** | **0.0000** | **0.3513** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.8446 | 3.6234 | 10.4109 | 0.0313 | 2.6665 | 0.0356 | 2.7021 | 0.7139 | 0.0335 | 0.7474 | 0.0000 | 2,858.3492 | 2,858.3492 | 0.1064 | 0.0000 | 2,861.0085 |
| Unmitigated | 0.8446 | 3.6234 | 10.4109 | 0.0313 | 2.6665 | 0.0356 | 2.7021 | 0.7139 | 0.0335 | 0.7474 | 0.0000 | 2,858.3492 | 2,858.3492 | 0.1064 | 0.0000 | 2,861.0085 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 0.00 | 0.00 | 0.00 | | |
| Gasoline/Service Station | 2,682.00 | 2,682.00 | 2682.00 | 7,169,565 | 7,169,565 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 2,682.00 | 2,682.00 | 2,682.00 | 7,169,565 | 7,169,565 |

## 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 |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 24 | 15 | 61 |
| Gasoline/Service Station | 9.50 | 7.30 | 7.30 | 2.00 | 79.00 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |
| Gasoline/Service Station | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |
| Parking Lot | 0.601004 | 0.039123 | 0.186461 | 0.109772 | 0.016124 | 0.004965 | 0.012251 | 0.019838 | 0.002045 | 0.001602 | 0.005388 | 0.000616 | 0.000812 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 14.0940 | 14.0940 | 6.4000e-004 | 1.3000e-004 | 14.1492 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 14.0940 | 14.0940 | 6.4000e-004 | 1.3000e-004 | 14.1492 |
| NaturalGas Mitigated | 2.8000e-004 | 2.5500e-003 | 2.1400e-003 | 2.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 2.7743 | 2.7743 | 5.0000e-005 | 5.0000e-005 | 2.7907 |
| NaturalGas Unmitigated | 2.8000e-004 | 2.5500e-003 | 2.1400e-003 | 2.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 2.7743 | 2.7743 | 5.0000e-005 | 5.0000e-005 | 2.7907 |

## 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 | | | | | |
| Convenience Market (24 Hour) | 7297.23 | 4.0000e-005 | 3.6000e-004 | 3.0000e-004 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | 0.0000 | 0.3894 | 0.3894 | 1.0000e-005 | 1.0000e-005 | 0.3917 |
| Gasoline/Service Station | 44690.4 | 2.4000e-004 | 2.1900e-003 | 1.8400e-003 | 1.0000e-005 | | 1.7000e-004 | 1.7000e-004 | | 1.7000e-004 | 1.7000e-004 | 0.0000 | 2.3849 | 2.3849 | 5.0000e-005 | 4.0000e-005 | 2.3990 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **2.8000e-004** | **2.5500e-003** | **2.1400e-003** | **1.0000e-005** | | **2.0000e-004** | **2.0000e-004** | | **2.0000e-004** | **2.0000e-004** | **0.0000** | **2.7743** | **2.7743** | **6.0000e-005** | **5.0000e-005** | **2.7907** |

### 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 | | | | | |
| Convenience Market (24 Hour) | 7297.23 | 4.0000e-005 | 3.6000e-004 | 3.0000e-004 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | 0.0000 | 0.3894 | 0.3894 | 1.0000e-005 | 1.0000e-005 | 0.3917 |
| Gasoline/Service Station | 44690.4 | 2.4000e-004 | 2.1900e-003 | 1.8400e-003 | 1.0000e-005 | | 1.7000e-004 | 1.7000e-004 | | 1.7000e-004 | 1.7000e-004 | 0.0000 | 2.3849 | 2.3849 | 5.0000e-005 | 4.0000e-005 | 2.3990 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **2.8000e-004** | **2.5500e-003** | **2.1400e-003** | **1.0000e-005** | | **2.0000e-004** | **2.0000e-004** | | **2.0000e-004** | **2.0000e-004** | **0.0000** | **2.7743** | **2.7743** | **6.0000e-005** | **5.0000e-005** | **2.7907** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market (24 Hour) | 32914.5 | 9.5752 | 4.3000e-004 | 9.0000e-005 | 9.6127 |
| Gasoline/Service Station | 13993.3 | 4.0708 | 1.8000e-004 | 4.0000e-005 | 4.0868 |
| Parking Lot | 1540 | 0.4480 | 2.0000e-005 | 0.0000 | 0.4498 |
| **Total** | | **14.0940** | **6.3000e-004** | **1.3000e-004** | **14.1492** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market (24 Hour) | 32914.5 | 9.5752 | 4.3000e-004 | 9.0000e-005 | 9.6127 |
| Gasoline/Service Station | 13993.3 | 4.0708 | 1.8000e-004 | 4.0000e-005 | 4.0868 |
| Parking Lot | 1540 | 0.4480 | 2.0000e-005 | 0.0000 | 0.4498 |
| **Total** | | **14.0940** | **6.3000e-004** | **1.3000e-004** | **14.1492** |

## 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0215 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.7000e-004 | 4.7000e-004 | 0.0000 | 0.0000 | 5.0000e-004 |
| Unmitigated | 0.0215 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.7000e-004 | 4.7000e-004 | 0.0000 | 0.0000 | 5.0000e-004 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 2.5800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0189 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.7000e-004 | 4.7000e-004 | 0.0000 | 0.0000 | 5.0000e-004 |
| **Total** | **0.0215** | **0.0000** | **2.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.7000e-004** | **4.7000e-004** | **0.0000** | **0.0000** | **5.0000e-004** |

### 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 | 2.5800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0189 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.7000e-004 | 4.7000e-004 | 0.0000 | 0.0000 | 5.0000e-004 |
| **Total** | **0.0215** | **0.0000** | **2.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.7000e-004** | **4.7000e-004** | **0.0000** | **0.0000** | **5.0000e-004** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 0.9748 | 0.0127 | 3.1000e-004 | 1.3827 |
| Unmitigated | 0.9748 | 0.0127 | 3.1000e-004 | 1.3827 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market (24 Hour) | 0.228143 / 0.13983 | 0.5739 | 7.4600e-003 | 1.8000e-004 | 0.8140 |
| Gasoline/Service Station | 0.159383 / 0.0976861 | 0.4009 | 5.2100e-003 | 1.3000e-004 | 0.5687 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.9748** | **0.0127** | **3.1000e-004** | **1.3827** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market (24 Hour) | 0.228143 / 0.13983 | 0.5739 | 7.4600e-003 | 1.8000e-004 | 0.8140 |
| Gasoline/Service Station | 0.159383 / 0.0976861 | 0.4009 | 5.2100e-003 | 1.3000e-004 | 0.5687 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.9748** | **0.0127** | **3.1000e-004** | **1.3827** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 3.1931 | 0.1887 | 0.0000 | 7.9106 |
| Unmitigated | 3.1931 | 0.1887 | 0.0000 | 7.9106 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market (24 Hour) | 9.26 | 1.8797 | 0.1111 | 0.0000 | 4.6569 |
| Gasoline/Service Station | 6.47 | 1.3134 | 0.0776 | 0.0000 | 3.2538 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **3.1931** | **0.1887** | **0.0000** | **7.9106** |

### 8.2 Waste by Land Use

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market (24 Hour) | 9.26 | 1.8797 | 0.1111 | 0.0000 | 4.6569 |
| Gasoline/Service Station | 6.47 | 1.3134 | 0.0776 | 0.0000 | 3.2538 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **3.1931** | **0.1887** | **0.0000** | **7.9106** |

## 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

# Rotten Robbie #11 - Existing Baseline

**Santa Clara County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 1.50 | 1000sqft | 0.60 | 1,500.00 | 0 |
| Gasoline/Service Station | 12.00 | Pump | 0.04 | 1,694.10 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 4 | | | **Operational Year** | 2018 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 641.35 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site = 0.6 acre

Construction Phase - No construction this model - Existing Baseline

Vehicle Trips - Trip Rate per Kimley Horn

Energy Use -

Rotten Robbie #11 - Existing Baseline - Santa Clara County, Summer

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 5.00 | 0.00 |
| tblLandUse | LotAcreage | 0.03 | 0.60 |
| tblVehicleTrips | DV_TP | 27.00 | 0.00 |
| tblVehicleTrips | PB_TP | 59.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 863.10 | 0.00 |
| tblVehicleTrips | ST_TR | 168.56 | 189.50 |
| tblVehicleTrips | SU_TR | 758.45 | 0.00 |
| tblVehicleTrips | SU_TR | 168.56 | 189.50 |
| tblVehicleTrips | WD_TR | 737.99 | 0.00 |
| tblVehicleTrips | WD_TR | 168.56 | 189.50 |

## 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 | | | | | |
| 2019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | | | | | |
| 2019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

## 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 | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| Energy | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |
| Mobile | 4.9160 | 17.3631 | 56.4918 | 0.1591 | 12.8620 | 0.1787 | 13.0407 | 3.4341 | 0.1684 | 3.6024 | | 16,000.7917 | 16,000.7917 | 0.6017 | | 16,015.8333 |
| **Total** | **4.9952** | **17.3776** | **56.5053** | **0.1592** | **12.8620** | **0.1798** | **13.0418** | **3.4341** | **0.1695** | **3.6035** | | **16,018.1782** | **16,018.1782** | **0.6020** | **3.2000e-004** | **16,033.3233** |

### 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 | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| Energy | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |
| Mobile | 4.9160 | 17.3631 | 56.4918 | 0.1591 | 12.8620 | 0.1787 | 13.0407 | 3.4341 | 0.1684 | 3.6024 | | 16,000.7917 | 16,000.7917 | 0.6017 | | 16,015.8333 |
| **Total** | **4.9952** | **17.3776** | **56.5053** | **0.1592** | **12.8620** | **0.1798** | **13.0418** | **3.4341** | **0.1695** | **3.6035** | | **16,018.1782** | **16,018.1782** | **0.6020** | **3.2000e-004** | **16,033.3233** |

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

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Architectural Coating | Architectural Coating | 5/2/2019 | 5/1/2019 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,791; Non-Residential Outdoor: 1,597; Striped Parking Area: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Architectural Coating - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Architectural Coating - 2019

**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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 4.9160 | 17.3631 | 56.4918 | 0.1591 | 12.8620 | 0.1787 | 13.0407 | 3.4341 | 0.1684 | 3.6024 | | 16,000.7917 | 16,000.7917 | 0.6017 | | 16,015.8333 |
| Unmitigated | 4.9160 | 17.3631 | 56.4918 | 0.1591 | 12.8620 | 0.1787 | 13.0407 | 3.4341 | 0.1684 | 3.6024 | | 16,000.7917 | 16,000.7917 | 0.6017 | | 16,015.8333 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 0.00 | 0.00 | 0.00 | | |
| Gasoline/Service Station | 2,274.00 | 2,274.00 | 2274.00 | 6,078,893 | 6,078,893 |
| Total | 2,274.00 | 2,274.00 | 2,274.00 | 6,078,893 | 6,078,893 |

## 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 |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 24 | 15 | 61 |
| Gasoline/Service Station | 9.50 | 7.30 | 7.30 | 2.00 | 79.00 | 19.00 | 100 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.596719 | 0.040200 | 0.188056 | 0.111125 | 0.016796 | 0.004948 | 0.012194 | 0.019466 | 0.002007 | 0.001626 | 0.005410 | 0.000612 | 0.000841 |
| Gasoline/Service Station | 0.596719 | 0.040200 | 0.188056 | 0.111125 | 0.016796 | 0.004948 | 0.012194 | 0.019466 | 0.002007 | 0.001626 | 0.005410 | 0.000612 | 0.000841 |

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |
| NaturalGas Unmitigated | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |

## 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 | | | | | |
| Convenience Market (24 Hour) | 12 | 1.3000e-004 | 1.1800e-003 | 9.9000e-004 | 1.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 1.4118 | 1.4118 | 3.0000e-005 | 3.0000e-005 | 1.4202 |
| Gasoline/Service Station | 135.76 | 1.4600e-003 | 0.0133 | 0.0112 | 8.0000e-005 | | 1.0100e-003 | 1.0100e-003 | | 1.0100e-003 | 1.0100e-003 | | 15.9718 | 15.9718 | 3.1000e-004 | 2.9000e-004 | 16.0667 |
| **Total** | | **1.5900e-003** | **0.0145** | **0.0122** | **9.0000e-005** | | **1.1000e-003** | **1.1000e-003** | | **1.1000e-003** | **1.1000e-003** | | **17.3835** | **17.3835** | **3.4000e-004** | **3.2000e-004** | **17.4868** |

**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 | | | | | |
| Convenience Market (24 Hour) | 0.012 | 1.3000e-004 | 1.1800e-003 | 9.9000e-004 | 1.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 1.4118 | 1.4118 | 3.0000e-005 | 3.0000e-005 | 1.4202 |
| Gasoline/Service Station | 0.13576 | 1.4600e-003 | 0.0133 | 0.0112 | 8.0000e-005 | | 1.0100e-003 | 1.0100e-003 | | 1.0100e-003 | 1.0100e-003 | | 15.9718 | 15.9718 | 3.1000e-004 | 2.9000e-004 | 16.0667 |
| **Total** | | **1.5900e-003** | **0.0145** | **0.0122** | **9.0000e-005** | | **1.1000e-003** | **1.1000e-003** | | **1.1000e-003** | **1.1000e-003** | | **17.3835** | **17.3835** | **3.4000e-004** | **3.2000e-004** | **17.4868** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| Unmitigated | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 9.1300e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0684 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.3000e-004 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| **Total** | **0.0776** | **1.0000e-005** | **1.4000e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **2.9500e-003** | **2.9500e-003** | **1.0000e-005** | | **3.1600e-003** |

### 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 | 9.1300e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0684 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.3000e-004 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| **Total** | **0.0776** | **1.0000e-005** | **1.4000e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **2.9500e-003** | **2.9500e-003** | **1.0000e-005** | | **3.1600e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Rotten Robbie #11 - Existing Baseline

**Santa Clara County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 1.50 | 1000sqft | 0.60 | 1,500.00 | 0 |
| Gasoline/Service Station | 12.00 | Pump | 0.04 | 1,694.10 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 4 | | | **Operational Year** | 2018 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 641.35 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site = 0.6 acre

Construction Phase - No construction this model - Existing Baseline

Vehicle Trips - Trip Rate per Kimley Horn

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 5.00 | 0.00 |
| tblLandUse | LotAcreage | 0.03 | 0.60 |
| tblVehicleTrips | DV_TP | 27.00 | 0.00 |
| tblVehicleTrips | PB_TP | 59.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 863.10 | 0.00 |
| tblVehicleTrips | ST_TR | 168.56 | 189.50 |
| tblVehicleTrips | SU_TR | 758.45 | 0.00 |
| tblVehicleTrips | SU_TR | 168.56 | 189.50 |
| tblVehicleTrips | WD_TR | 737.99 | 0.00 |
| tblVehicleTrips | WD_TR | 168.56 | 189.50 |

## 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 | | | | | |
| 2019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | | | | | |
| 2019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.1288 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.1288** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

## 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 | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| Energy | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |
| Mobile | 4.3533 | 18.5886 | 55.9060 | 0.1482 | 12.8620 | 0.1800 | 13.0420 | 3.4341 | 0.1696 | 3.6037 | | 14,901.0408 | 14,901.0408 | 0.6029 | | 14,916.1123 |
| **Total** | **4.4325** | **18.6031** | **55.9195** | **0.1483** | **12.8620** | **0.1811** | **13.0431** | **3.4341** | **0.1707** | **3.6048** | | **14,918.4273** | **14,918.4273** | **0.6032** | **3.2000e-004** | **14,933.6023** |

### 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 | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| Energy | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |
| Mobile | 4.3533 | 18.5886 | 55.9060 | 0.1482 | 12.8620 | 0.1800 | 13.0420 | 3.4341 | 0.1696 | 3.6037 | | 14,901.0408 | 14,901.0408 | 0.6029 | | 14,916.1123 |
| **Total** | **4.4325** | **18.6031** | **55.9195** | **0.1483** | **12.8620** | **0.1811** | **13.0431** | **3.4341** | **0.1707** | **3.6048** | | **14,918.4273** | **14,918.4273** | **0.6032** | **3.2000e-004** | **14,933.6023** |

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

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Architectural Coating | Architectural Coating | 5/2/2019 | 5/1/2019 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,791; Non-Residential Outdoor: 1,597; Striped Parking Area: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Architectural Coating - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Architectural Coating - 2019

**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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 4.3533 | 18.5886 | 55.9060 | 0.1482 | 12.8620 | 0.1800 | 13.0420 | 3.4341 | 0.1696 | 3.6037 | | 14,901.0408 | 14,901.0408 | 0.6029 | | 14,916.1123 |
| Unmitigated | 4.3533 | 18.5886 | 55.9060 | 0.1482 | 12.8620 | 0.1800 | 13.0420 | 3.4341 | 0.1696 | 3.6037 | | 14,901.0408 | 14,901.0408 | 0.6029 | | 14,916.1123 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 0.00 | 0.00 | 0.00 | | |
| Gasoline/Service Station | 2,274.00 | 2,274.00 | 2274.00 | 6,078,893 | 6,078,893 |
| Total | 2,274.00 | 2,274.00 | 2,274.00 | 6,078,893 | 6,078,893 |

## 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 |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 24 | 15 | 61 |
| Gasoline/Service Station | 9.50 | 7.30 | 7.30 | 2.00 | 79.00 | 19.00 | 100 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.596719 | 0.040200 | 0.188056 | 0.111125 | 0.016796 | 0.004948 | 0.012194 | 0.019466 | 0.002007 | 0.001626 | 0.005410 | 0.000612 | 0.000841 |
| Gasoline/Service Station | 0.596719 | 0.040200 | 0.188056 | 0.111125 | 0.016796 | 0.004948 | 0.012194 | 0.019466 | 0.002007 | 0.001626 | 0.005410 | 0.000612 | 0.000841 |

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |
| NaturalGas Unmitigated | 1.5900e-003 | 0.0145 | 0.0122 | 9.0000e-005 | | 1.1000e-003 | 1.1000e-003 | | 1.1000e-003 | 1.1000e-003 | | 17.3835 | 17.3835 | 3.3000e-004 | 3.2000e-004 | 17.4868 |

## 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 | | | | | |
| Convenience Market (24 Hour) | 12 | 1.3000e-004 | 1.1800e-003 | 9.9000e-004 | 1.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 1.4118 | 1.4118 | 3.0000e-005 | 3.0000e-005 | 1.4202 |
| Gasoline/Service Station | 135.76 | 1.4600e-003 | 0.0133 | 0.0112 | 8.0000e-005 | | 1.0100e-003 | 1.0100e-003 | | 1.0100e-003 | 1.0100e-003 | | 15.9718 | 15.9718 | 3.1000e-004 | 2.9000e-004 | 16.0667 |
| **Total** | | **1.5900e-003** | **0.0145** | **0.0122** | **9.0000e-005** | | **1.1000e-003** | **1.1000e-003** | | **1.1000e-003** | **1.1000e-003** | | **17.3835** | **17.3835** | **3.4000e-004** | **3.2000e-004** | **17.4868** |

**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 | | | | | |
| Convenience Market (24 Hour) | 0.012 | 1.3000e-004 | 1.1800e-003 | 9.9000e-004 | 1.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 1.4118 | 1.4118 | 3.0000e-005 | 3.0000e-005 | 1.4202 |
| Gasoline/Service Station | 0.13576 | 1.4600e-003 | 0.0133 | 0.0112 | 8.0000e-005 | | 1.0100e-003 | 1.0100e-003 | | 1.0100e-003 | 1.0100e-003 | | 15.9718 | 15.9718 | 3.1000e-004 | 2.9000e-004 | 16.0667 |
| **Total** | | **1.5900e-003** | **0.0145** | **0.0122** | **9.0000e-005** | | **1.1000e-003** | **1.1000e-003** | | **1.1000e-003** | **1.1000e-003** | | **17.3835** | **17.3835** | **3.4000e-004** | **3.2000e-004** | **17.4868** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| Unmitigated | 0.0776 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 9.1300e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0684 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.3000e-004 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| **Total** | **0.0776** | **1.0000e-005** | **1.4000e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **2.9500e-003** | **2.9500e-003** | **1.0000e-005** | | **3.1600e-003** |

### 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 | 9.1300e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0684 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.3000e-004 | 1.0000e-005 | 1.4000e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 2.9500e-003 | 2.9500e-003 | 1.0000e-005 | | 3.1600e-003 |
| **Total** | **0.0776** | **1.0000e-005** | **1.4000e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **2.9500e-003** | **2.9500e-003** | **1.0000e-005** | | **3.1600e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Rotten Robbie #11 - Existing Baseline

**Santa Clara County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 1.50 | 1000sqft | 0.60 | 1,500.00 | 0 |
| Gasoline/Service Station | 12.00 | Pump | 0.04 | 1,694.10 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 4 | | | **Operational Year** | 2018 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 641.35 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site = 0.6 acre

Construction Phase - No construction this model - Existing Baseline

Vehicle Trips - Trip Rate per Kimley Horn

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 5.00 | 0.00 |
| tblLandUse | LotAcreage | 0.03 | 0.60 |
| tblVehicleTrips | DV_TP | 27.00 | 0.00 |
| tblVehicleTrips | PB_TP | 59.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 863.10 | 0.00 |
| tblVehicleTrips | ST_TR | 168.56 | 189.50 |
| tblVehicleTrips | SU_TR | 758.45 | 0.00 |
| tblVehicleTrips | SU_TR | 168.56 | 189.50 |
| tblVehicleTrips | WD_TR | 737.99 | 0.00 |
| tblVehicleTrips | WD_TR | 168.56 | 189.50 |

## 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 | | | | | |
| 2019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2019 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| | | Highest | | |

## 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 | 0.0142 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.0000 | 2.6000e-004 |
| Energy | 2.9000e-004 | 2.6400e-003 | 2.2200e-003 | 2.0000e-005 | | 2.0000e-004 | 2.0000e-004 | | 2.0000e-004 | 2.0000e-004 | 0.0000 | 12.8710 | 12.8710 | 5.1000e-004 | 1.5000e-004 | 12.9272 |
| Mobile | 0.7898 | 3.2934 | 9.7718 | 0.0273 | 2.2611 | 0.0326 | 2.2937 | 0.6054 | 0.0307 | 0.6361 | 0.0000 | 2,487.6280 | 2,487.6280 | 0.0975 | 0.0000 | 2,490.0644 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.2288 | 0.0000 | 2.2288 | 0.1317 | 0.0000 | 5.5219 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0858 | 0.5946 | 0.6804 | 8.8400e-003 | 2.1000e-004 | 0.9651 |
| **Total** | **0.8042** | **3.2961** | **9.7742** | **0.0273** | **2.2611** | **0.0328** | **2.2939** | **0.6054** | **0.0309** | **0.6363** | **2.3147** | **2,501.0938** | **2,503.4084** | **0.2385** | **3.6000e-004** | **2,509.4789** |

## 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 | 0.0142 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.0000 | 2.6000e-004 |
| Energy | 2.9000e-004 | 2.6400e-003 | 2.2200e-003 | 2.0000e-005 | | 2.0000e-004 | 2.0000e-004 | | 2.0000e-004 | 2.0000e-004 | 0.0000 | 12.8710 | 12.8710 | 5.1000e-004 | 1.5000e-004 | 12.9272 |
| Mobile | 0.7898 | 3.2934 | 9.7718 | 0.0273 | 2.2611 | 0.0326 | 2.2937 | 0.6054 | 0.0307 | 0.6361 | 0.0000 | 2,487.6280 | 2,487.6280 | 0.0975 | 0.0000 | 2,490.0644 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.2288 | 0.0000 | 2.2288 | 0.1317 | 0.0000 | 5.5219 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0858 | 0.5946 | 0.6804 | 8.8400e-003 | 2.1000e-004 | 0.9651 |
| **Total** | **0.8042** | **3.2961** | **9.7742** | **0.0273** | **2.2611** | **0.0328** | **2.2939** | **0.6054** | **0.0309** | **0.6363** | **2.3147** | **2,501.0938** | **2,503.4084** | **0.2385** | **3.6000e-004** | **2,509.4789** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Architectural Coating | Architectural Coating | 5/2/2019 | 5/1/2019 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 4,791; Non-Residential Outdoor: 1,597; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Architectural Coating - 2019

### Unmitigated Construction On-Site

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

### Unmitigated Construction Off-Site

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

## 3.2 Architectural Coating - 2019

**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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated Construction Off-Site**

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

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.7898 | 3.2934 | 9.7718 | 0.0273 | 2.2611 | 0.0326 | 2.2937 | 0.6054 | 0.0307 | 0.6361 | 0.0000 | 2,487.6280 | 2,487.6280 | 0.0975 | 0.0000 | 2,490.0644 |
| Unmitigated | 0.7898 | 3.2934 | 9.7718 | 0.0273 | 2.2611 | 0.0326 | 2.2937 | 0.6054 | 0.0307 | 0.6361 | 0.0000 | 2,487.6280 | 2,487.6280 | 0.0975 | 0.0000 | 2,490.0644 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 0.00 | 0.00 | 0.00 | | |
| Gasoline/Service Station | 2,274.00 | 2,274.00 | 2274.00 | 6,078,893 | 6,078,893 |
| Total | 2,274.00 | 2,274.00 | 2,274.00 | 6,078,893 | 6,078,893 |

## 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 |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 24 | 15 | 61 |
| Gasoline/Service Station | 9.50 | 7.30 | 7.30 | 2.00 | 79.00 | 19.00 | 100 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.596719 | 0.040200 | 0.188056 | 0.111125 | 0.016796 | 0.004948 | 0.012194 | 0.019466 | 0.002007 | 0.001626 | 0.005410 | 0.000612 | 0.000841 |
| Gasoline/Service Station | 0.596719 | 0.040200 | 0.188056 | 0.111125 | 0.016796 | 0.004948 | 0.012194 | 0.019466 | 0.002007 | 0.001626 | 0.005410 | 0.000612 | 0.000841 |

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.9929 | 9.9929 | 4.5000e-004 | 9.0000e-005 | 10.0321 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.9929 | 9.9929 | 4.5000e-004 | 9.0000e-005 | 10.0321 |
| NaturalGas Mitigated | 2.9000e-004 | 2.6400e-003 | 2.2200e-003 | 2.0000e-005 | | 2.0000e-004 | 2.0000e-004 | | 2.0000e-004 | 2.0000e-004 | 0.0000 | 2.8780 | 2.8780 | 6.0000e-005 | 5.0000e-005 | 2.8951 |
| NaturalGas Unmitigated | 2.9000e-004 | 2.6400e-003 | 2.2200e-003 | 2.0000e-005 | | 2.0000e-004 | 2.0000e-004 | | 2.0000e-004 | 2.0000e-004 | 0.0000 | 2.8780 | 2.8780 | 6.0000e-005 | 5.0000e-005 | 2.8951 |

## 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 | | | | | |
| Convenience Market (24 Hour) | 4380 | 2.0000e-005 | 2.1000e-004 | 1.8000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.2337 | 0.2337 | 0.0000 | 0.0000 | 0.2351 |
| Gasoline/Service Station | 49552.4 | 2.7000e-004 | 2.4300e-003 | 2.0400e-003 | 1.0000e-005 | | 1.8000e-004 | 1.8000e-004 | | 1.8000e-004 | 1.8000e-004 | 0.0000 | 2.6443 | 2.6443 | 5.0000e-005 | 5.0000e-005 | 2.6600 |
| **Total** | | **2.9000e-004** | **2.6400e-003** | **2.2200e-003** | **1.0000e-005** | | **2.0000e-004** | **2.0000e-004** | | **2.0000e-004** | **2.0000e-004** | **0.0000** | **2.8780** | **2.8780** | **5.0000e-005** | **5.0000e-005** | **2.8951** |

### 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 | | | | | |
| Convenience Market (24 Hour) | 4380 | 2.0000e-005 | 2.1000e-004 | 1.8000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.2337 | 0.2337 | 0.0000 | 0.0000 | 0.2351 |
| Gasoline/Service Station | 49552.4 | 2.7000e-004 | 2.4300e-003 | 2.0400e-003 | 1.0000e-005 | | 1.8000e-004 | 1.8000e-004 | | 1.8000e-004 | 1.8000e-004 | 0.0000 | 2.6443 | 2.6443 | 5.0000e-005 | 5.0000e-005 | 2.6600 |
| **Total** | | **2.9000e-004** | **2.6400e-003** | **2.2200e-003** | **1.0000e-005** | | **2.0000e-004** | **2.0000e-004** | | **2.0000e-004** | **2.0000e-004** | **0.0000** | **2.8780** | **2.8780** | **5.0000e-005** | **5.0000e-005** | **2.8951** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market (24 Hour) | 18375 | 5.3455 | 2.4000e-004 | 5.0000e-005 | 5.3664 |
| Gasoline/Service Station | 15975.4 | 4.6474 | 2.1000e-004 | 4.0000e-005 | 4.6656 |
| **Total** | | **9.9929** | **4.5000e-004** | **9.0000e-005** | **10.0321** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market (24 Hour) | 18375 | 5.3455 | 2.4000e-004 | 5.0000e-005 | 5.3664 |
| Gasoline/Service Station | 15975.4 | 4.6474 | 2.1000e-004 | 4.0000e-005 | 4.6656 |
| **Total** | | **9.9929** | **4.5000e-004** | **9.0000e-005** | **10.0321** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0142 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.0000 | 2.6000e-004 |
| Unmitigated | 0.0142 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.0000 | 2.6000e-004 |

## 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 | 1.6700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0125 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.0000 | 2.6000e-004 |
| **Total** | **0.0142** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.4000e-004** | **2.4000e-004** | **0.0000** | **0.0000** | **2.6000e-004** |

### 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 | 1.6700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0125 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.0000 | 2.6000e-004 |
| **Total** | **0.0142** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.4000e-004** | **2.4000e-004** | **0.0000** | **0.0000** | **2.6000e-004** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 0.6804 | 8.8400e-003 | 2.1000e-004 | 0.9651 |
| Unmitigated | 0.6804 | 8.8400e-003 | 2.1000e-004 | 0.9651 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market (24 Hour) | 0.111109 / 0.0680989 | 0.2795 | 3.6300e-003 | 9.0000e-005 | 0.3964 |
| Gasoline/Service Station | 0.159383 / 0.0976861 | 0.4009 | 5.2100e-003 | 1.3000e-004 | 0.5687 |
| **Total** | | **0.6804** | **8.8400e-003** | **2.2000e-004** | **0.9651** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market (24 Hour) | 0.111109 / 0.0680989 | 0.2795 | 3.6300e-003 | 9.0000e-005 | 0.3964 |
| Gasoline/Service Station | 0.159383 / 0.0976861 | 0.4009 | 5.2100e-003 | 1.3000e-004 | 0.5687 |
| **Total** | | **0.6804** | **8.8400e-003** | **2.2000e-004** | **0.9651** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 2.2288 | 0.1317 | 0.0000 | 5.5219 |
| Unmitigated | 2.2288 | 0.1317 | 0.0000 | 5.5219 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market (24 Hour) | 4.51 | 0.9155 | 0.0541 | 0.0000 | 2.2681 |
| Gasoline/Service Station | 6.47 | 1.3134 | 0.0776 | 0.0000 | 3.2538 |
| **Total** | | **2.2288** | **0.1317** | **0.0000** | **5.5219** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market (24 Hour) | 4.51 | 0.9155 | 0.0541 | 0.0000 | 2.2681 |
| Gasoline/Service Station | 6.47 | 1.3134 | 0.0776 | 0.0000 | 3.2538 |
| **Total** | | **2.2288** | **0.1317** | **0.0000** | **5.5219** |

## 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