

APPENDIX D

Air Quality Assessment

AIR QUALITY ASSESSMENT

**Warner Ranch Residential Development
TM 5508, GPA 06-009
County of San Diego, CA**

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LIST OF ACRONYMS

Air Quality Impact Assessments (AQIA)
Assembly Bill 32 (AB32)
California Air Resource Board (CARB)
California Ambient Air Quality Standards (CAAQS)
California Environmental Quality Act (CEQA)
Carbon Dioxide (CO₂)
Cubic Yards (CY)
Diesel Particulate Matter (DPM)
Environmental Protection Agency (EPA)
EPA Office of Air Quality Planning and Standards (OAQPS)
Hazardous Air Pollutants (HAPs)
Hydrogen Sulfide (H₂S)
International Residential Code (IRC)
Level of Service (LOS)
Low Carbon Fuel Standard (LCFS)
Methane (CH₄)
National ambient air quality standards (NAAQS)
Nitrous Oxide (N₂O)
North County Transit District (NCTD)
Reactive Organic Gas (ROG)
Regional Air Quality Strategy (RAQS)
San Diego Air Basin (SDAB)
San Diego Air Pollution Control District (SDAPCD)
South Coast Air Quality Management District (SCAQMD)
Specific Plan Area (SPA)
State Implementation Plan (SIP)
Toxic Air Contaminants (TACs)
Vehicle Miles Traveled (VMT)

EXECUTIVE SUMMARY

This air quality impact study has been completed to determine the air quality impacts associated with the development of the proposed Warner Ranch Specific Plan Residential Development. The proposed Project site is located within the community of Pala, within northern portion of San Diego County. The proposed project envisions providing 534 Single-Family detached homes and 246 Multi-Family attached townhomes and 11.93 acres of park and recreation areas with 4.23 acres of that area opened to the public. Additionally, the Project would build parks and a fire station to serve the community. All phases (i.e. mass grading, trenching, finish grading and construction) of the proposed Project are anticipated to start in 2017 with construction and opening of the first buildings sometime in 2020 and full buildout in 2025. The project would be fully operational in 2025.

During construction of the proposed Project, fugitive dust emissions will be expected during grading, heavy equipment usage, and from construction workers commuting to and from the site. During short-term construction activities, the Project would exceed NO_x thresholds established by the San Diego Air Pollution Control District (SDAPCD) and will require mitigation. Furthermore, the project would be required to implement best management practices (BMPs) to further limit fugitive dust per SDAPCD requirements. It was found that the following BMPs and mitigation measures will reduce construction impacts to less than significant.

- *Construction Mitigation Measure 1: Ensure that all heavy diesel construction equipment is classified as Tier III at a minimum to limit ROG emissions. This will also satisfy health risk impacts related to diesel particulates under T-BACT guidelines.*
- *Construction Mitigation Measure 2: Ensure that equipment during building construction meet Tier IV guidelines at a minimum to limit ROG emissions. This will also satisfy health risk impacts related to diesel particulates under T-BACT guidelines.*
- *Construction Mitigation Measure 3: During Construction only Low VOC paints shall be utilized (150 g/l or less).*
- *Best Management Practice 1: Prior to drilling for blasting purposes, the project shall remove overburden to reduce the potential of fine particulates becoming airborne.*
- *Best Management Practice 2: Water injection shall be used during drilling the blasting holes in order to control drilling dust.*
- *Best Management Practice 3: Wet all blast areas prior to blasting.*
- *Best Management Practice 4: Nearby neighbors shall be notified of all blasts before each occurrence.*
- *Best Management Practice 5: Comply with SDAPCD's fugitive dust rules and dust reduction measures outlined in Section 87.426 of the County's Grading Ordinance (County of San Diego, 2012)*

Additionally, emissions will be generated from both area and operational sources by the proposed Project which are the result of Project generated traffic, landscaping maintenance

equipment, consumer products, and annual maintenance and painting to name a few. ROG impacts will be at their peak during concurrent construction and operations through Buildout. ROG sources are from construction activities, vehicular trips, area operations to include hearth usage, architectural coatings, and energy usage. Mitigation measures requiring the project construction team to use Tier III equipment during grading and Tier IV equipment during building construction were found to reduce these impacts to below significance. The project would also be required to restrict fireplaces to only natural gas hearth options within residential units.

- *Operations Mitigation Measure 1: Provide only natural gas hearth options within residential units.*

A Carbon Monoxide (CO) hot spot analysis was conducted at two of the worst-case intersections impacted by the Project which both exceeded the 3,000 Peak Hour trips screening level and operated at Level of Service (LOS) E or worse as required (Source: Guidelines for Determining Significance and Report Format and Content Requirements - County of San Diego). These two intersections were considered to be the worst case based upon the Project related traffic trips and delays added. Both intersections were analyzed with CALINE and found to produce CO emission concentrations lower than California Ambient Air Quality Standards. Therefore, no CO hotspots are expected.

Furthermore, a screening-level health risk assessment was conducted to determine the potential for the Project to result in a significant impact on nearby sensitive receptors during short-term construction activities. For purposes of this analysis, the primary pollutant of concern is diesel particulate matter (DPM) which is emitted by the operation of heavy diesel equipment during construction activities. The result of the health risk assessment indicates that the proposed Project could increase the cancer risk to above one in one million but through the implementation of utilizing T-BACT technologies such as using Tier III and IV diesel equipment as is required for construction emission reductions stated above. Emissions would not exceed ten in one million and would therefore not create a significant impact to any nearby receptors.

Finally, the proposed Project would not be expected to generate any short term construction impacts with regards to offensive odors but would have a potential to cause significant odor impacts at the sewage lift station and would require the following mitigation measures to comply.

- *Operations Mitigation Measure 2: To prevent odors, the sewage lift station will be constructed below ground and will be covered such that odorous gases cannot escape.*
- *Operations Mitigation Measure 3: Sewage will be pumped out regularly to prevent foul odors from forming.*

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Air Quality study is to determine potential air quality impacts (if any) that may be created by construction, area or operational emissions (short term or long term) from the proposed Project. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to bring those impacts to a level that would be considered less than significant.

1.2 Project Location

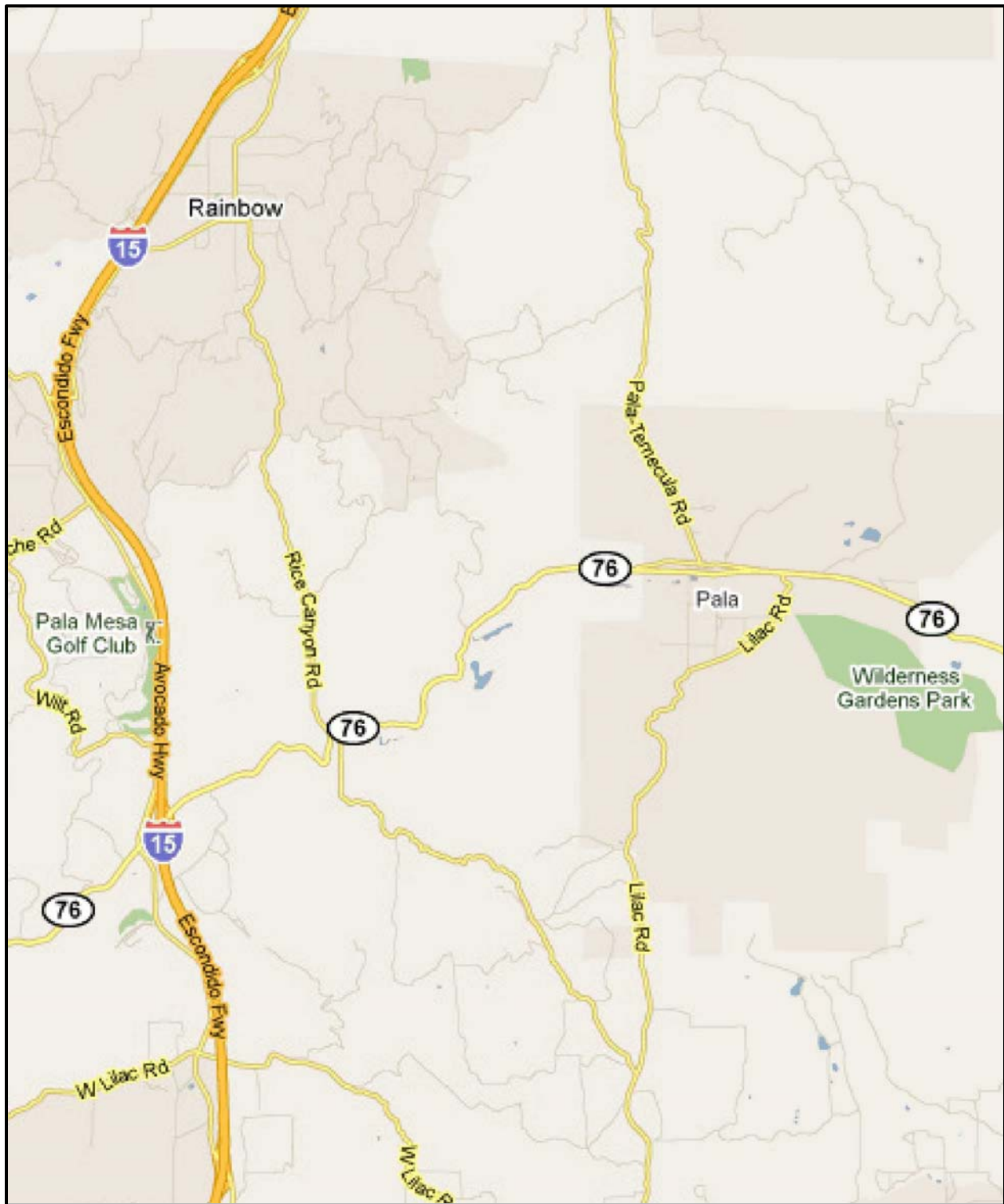
The proposed development is located in the unincorporated County of San Diego in the Warner Ranch Specific Plan Area, approximately five miles east of Interstate 15. The Project is adjacent to State Route 76 (SR 76) just west of Pala Temecula Road. Access to the Project site is provided by SR 76. State Route 76 and Pala Temecula Road are arterials that connect the Project to other arterials. Interstate 15 provides regional access to the Project site. A general project vicinity map is shown in Figure 1–A on the following page.

1.3 Project Description

The proposed Warner Ranch Project is primarily envisioned to provide a range of workforce housing opportunities consistent with the Job/Housing Balance goals and policies of the San Diego County General Plan. The proposed project envisions providing 534 Single-Family detached homes and 246 Multi-Family attached townhomes and 11.93 acres of park and recreation areas with 4.23 acres of that area opened to the public. Additionally, the project would have 14.65 acres of landscaped areas around the project. Furthermore, the project would permanently create 358.77 acres of preserved open space. Also, as part of the project, a 10,000 SF fire station will be built onsite. The recently adopted General Plan and associated Pala/Pauma Community Plan provides for the implementation of this project by designating this 513-acre property as a Special Study Area (SSA).

The SSA requires preparation of specific studies relative to Job/Housing Balance, Infrastructure, and Community Compatibility as part of an upcoming General Plan Amendment to allow for higher density residential development within this SSA. Consistent with the SSA requirements, the Warner Ranch Project proposes General Plan Amendment (GPA), Specific Plan, Rezone, and Vesting Tentative Map to develop 513 acres with 780 residential units and associated public and private facilities and services.

Figure 1-A: Project Vicinity Map



Source: (Google, 2011)

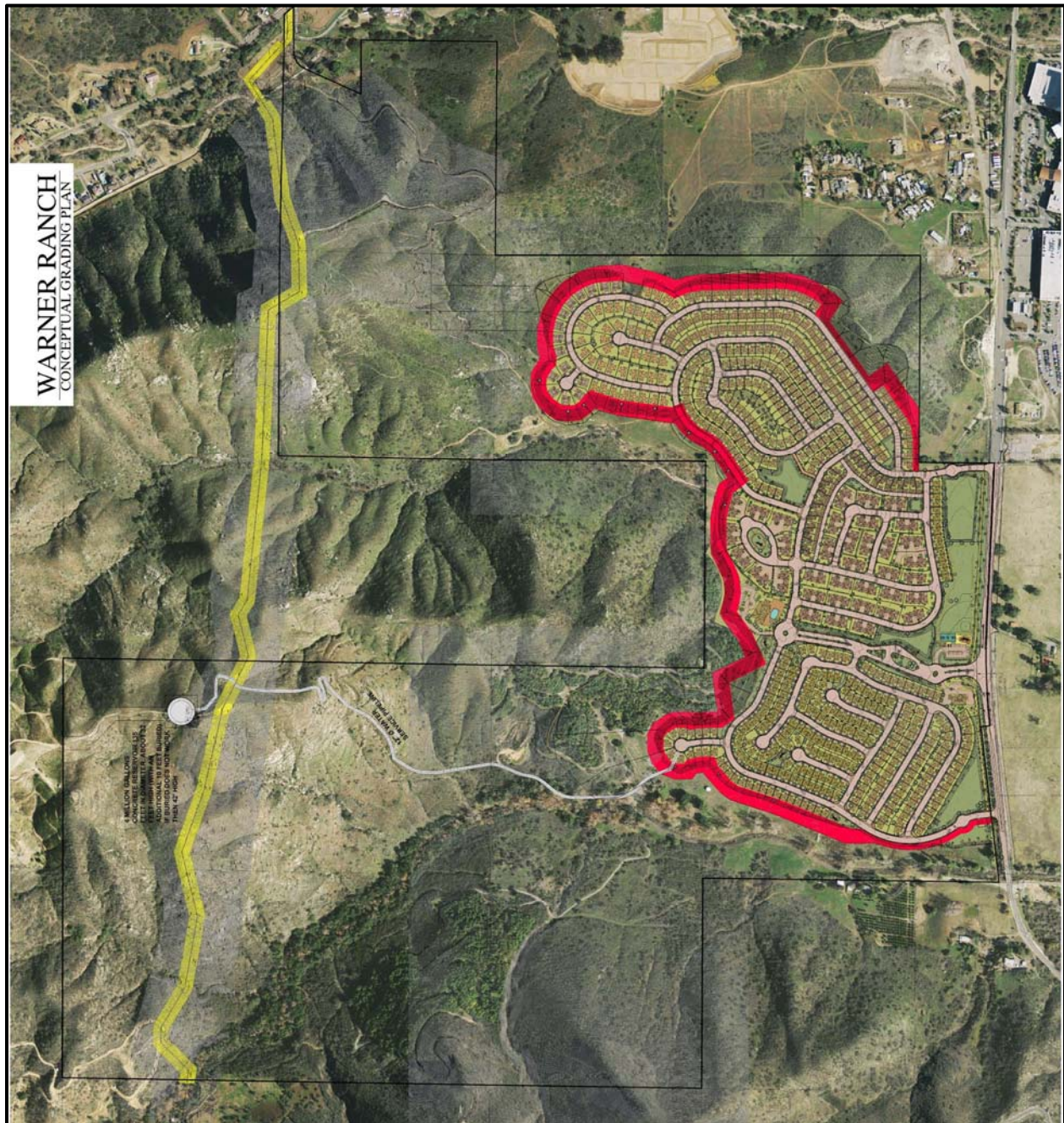
The project area is within County Service Area (CSA) 135, and the fire station would be constructed on-site fronting SR 76. To meet fire safety requirements, two emergency access roads would be on the eastern and western site boundaries, also accessible from SR 76. Another secondary access road would link the property to Pala/Temecula Road to the east. The 28-foot wide road bed and associated fuel modification zone would be aligned along an existing dirt road which runs through the northeastern portion of the site to Pala/Temecula Road. Fuel modification zones will also be included adjacent to the development areas, outside of the biological open space to be preserved.

Preparation of the site for development would involve the mass grading of approximately 175 acres which would be expected to require approximately 2.3 Million Cubic Yards (CY) of onsite material movement of which approximately 1,283,423 Cubic Yards would be developed from onsite blasting. The Project grading would be expected to take approximately 27 months to complete with trenching and finish grading lasting an additional three months. After the 30-month grading period, the Project applicant would begin paving the site and building the fire station and residential units. The residential units will be phased in accordance with necessary infrastructure improvements to support the units. The residential units will be phased in accordance with necessary infrastructure improvements to support the units. The entire build out of the Project would be expected no sooner than 2025. The proposed site development plan is shown in Figure 1–B.

The Project proposes to both utilize existing alternative transportation conveniences as well as implement new bike and pedestrian walkways throughout the Project. North County Transit District (NCTD) provides route 389 that services the Pala community. The routes last scheduled bus stop is at the Pala Casino just across the street from the Project frontage. Also, a Class II bike lane is proposed in accordance with the San Diego County General Plan Mobility Element along the Project frontage.

Sewer water service will also be provided by Rainbow Municipal Water District (RMWD). As such, the applicant would install a 4 million gallon water tank and construct and provide improvements necessary to provide for the project's sewer needs which will include the construction of an underground pump station located at the southwestern edge of the property connecting to an existing 8 inch force main sewer line.

Figure 1-B: Proposed Project Site Plan



Source: Shapouri & Associates, 2/13



2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The Project site lies in the northern portion of San Diego County five miles east of Interstate 15, approximately 40 miles north of the City of San Diego, north of Pala Road (State Route 76) and west of Pala Temecula Road. The Pala Band of Mission Indians Reservation lies north, south and east of the proposed Warner Ranch development. The existing use of the Project site is residential and agricultural. The Warner Ranch specific plan area is generally represented by a diverse topography with elevations ranging from 350 feet to 1,000 feet above mean sea level. The northern portion of the SPA is generally depicted as moderately to steep sloped with a steep mountainous area along the eastern edge and a major river valley and tributary canyon to the south.

Currently, the 513-acre site consists of both undeveloped and improved areas. The undeveloped areas are located in the northern and eastern portions of the site while the improved areas are more centrally located to the south and west. The developed ranch facilities include "Warner Ranch" Quarter Horses equestrian facility, stables, equipment and feed garages, an arena, an office and residences. Agricultural areas include pastures, two citrus orchards and two avocado orchards. In addition, asphalt roads extend throughout the ranch and orchards.

Land uses directly surrounding the SPA to the west and south is agricultural and undeveloped lands. Land uses to the north, east and southeast of the project site consist of the Pala Band of Mission Indians Reservation. The Pala Band of Mission Indians has been funding and building homes exclusively for tribal members located within the Reservation. In early 2004, a new tribal department called the Pala Housing Authority was formed in order to provide continued housing and assisted loan programs. That same year, the Pala Housing Authority began designing new home plans, ranging from 3-bedroom to 5-bedroom homes and measuring approximately 3,000 square feet in size. Several new homes have been completed since then.

In addition, the Pala Housing Authority has begun the planning and building of small master-planned communities in an attempt to ultimately ensure housing for every Tribe member. The Pala community also includes schools, commercial uses and facilities and services that are open to the public, such as a convenience store and gas station, the Pala Learning Center, Cupa Cultural Center and Pala Casino Resort and Spa.

The Pala Casino Resort and Spa is located southeast of the Project site and contains on-site facilities for numerous amenities such as shopping, a day spa, golfing, dining,

entertainment, a resort hotel, and a small commercial center. The Pala Resort also includes roughly 589 multi-family units ranging from approximately 500 to 1,000 square feet in size. The Pala Casino Resort and Spa facilities have recently undergone a major renovation and expansion, which created parking structures further to the west, towards the SPA. Other existing and planned uses located in the surrounding area include Pala Raceway, Pala Wastewater Treatment Plant, Pala Shooting Range, proposed Gregory Canyon Landfill, proposed Rosemary's Quarry and proposed SDG&E Substation Expansion.

2.2 Climate and Meteorology

Meteorological trends within the Pala area generally are very similar to that of nearby Bonsall where daytime highs typically range between 68°F in the winter to approximately 83°F in the summer with August usually being the hottest month. Median temperatures range from approximately 56°F in the winter to approximately 73°F in the summer. The average humidity is approximately 65% in the winter and about 73% in the summer. (City-Data, 2015).

2.3 Regulatory Standards

2.3.1 Federal Standards and Definitions

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. **Primary Standards** set limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and elderly. **Secondary Standards** set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

1. **Carbon Monoxide (CO):** *is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability*

of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.

2. **Lead (Pb):** is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.
3. **Nitrogen Dioxide (NO₂):** is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO₂ is usually visible as a reddish-brown air layer over urban areas. NO₂ along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.
4. **Particulate Matter (PM₁₀ or PM_{2.5}):** is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM₁₀ particles are 10 microns (µm) or less and PM_{2.5} particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.
5. **Ozone (O₃):** is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics.
6. **Sulfur Dioxide (SO₂):** is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO₂ is also emitted from several industrial processes, such as

petroleum refining and metal processing. Effects from SO₂ exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO₂ results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.

2.3.2 State Standards and Definitions

The State of California Air Resources Board (ARB) sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive than the NAAQS and also restrict four additional contaminants. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. **Visibility Reducing Particles:** *Particles in the Air that obstruct the visibility.*
2. **Sulfates:** *are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.*
3. **Hydrogen Sulfide (H₂S):** *is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H₂S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H₂S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness and possibly death.*
4. **Vinyl Chloride:** *also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).*

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Average Time	California Standards ¹		Federal Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)		
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		-		
Fine Particulate Matter PM2.5	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³		
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		-		
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m ³) ⁸	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m ³)		0.100 ppm ⁸ (188/ µg/m ³)		
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm (for Certain Areas)	-	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) ⁹
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m ³)	
	1 Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³)	-	
Lead ¹⁰	30 Day Average	1.5 µg/m ³	Atomic Absorption	-	Same as Primary Standard	-
	Calendar Quarter	-		1.5 µg/m ³		
	Rolling 3-Month Average	-		0.15 µg/m ³		
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07 -30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape				
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹⁰	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			
1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing articles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. 2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies. 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas. 4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used. 5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. 6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. 7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA. 8. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm. 9. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm. 10. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants. 11. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved. 12. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively. Source: California Air Resources Board (6/4/13)						

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the PM_{2.5} standard and many areas are in non-attainment for PM₁₀ as well. The state therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed for California Air basin to attain ambient air quality standards.

The San Diego Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within San Diego County. Therefore, the SDAPCD developed a Regional Air Quality Strategy (RAQS) to provide control measures to try to achieve attainment status. Currently, San Diego is in "non-attainment" status for federal O₃ and the State PM₁₀ and PM_{2.5} however, an attainment plan is only available of O₃. The RAQS was adopted in 1992 and has been updated as recently as 2009 which was the latest update incorporating minor changes to the prior 2004 update.

The 2009 update mostly clarifies and enhances emission reductions by implementing new VOC and NOX reduction measures. The criteria pollutant standards are generally attained when each monitor within the region has had no exceedances during the previous three calendar years. A complete listing of the current attainment status with respect to both federal and state nonattainment status by pollutants for San Diego County is shown in Table 2.2 on the following page.

The RAQS is largely based on population predictions by the San Diego Association of Governments (SANDAG). Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS and projects create more growth than projected by SANDAG may create a significant impact assuming the project either produces unmitigable emission generation in excess of the regional standards. Also the project would be considered a significant impact if the project produces cumulative impacts.

Table 2.2: San Diego County Air Basin Attainment Status by Pollutant

San Diego County Air Basin Attainment Status by Pollutant			
Pollutant	Average Time	California Standards	Federal Standards
Ozone (O ₃)	1 Hour	Non-attainment	No Federal Standard
	8 Hour		Basic Non-attainment
Respirable Particulate Matter (PM ₁₀)	24 Hour	Non-attainment	Unclassified ¹
	Annual Arithmetic Mean	No State Standard	Unclassified ²
Fine Particulate Matter PM _{2.5}	24 Hour	No State Standard	Attainment
	Annual Arithmetic Mean	Non-attainment	Attainment
Carbon Monoxide (CO)	8 hour	Attainment	Maintenance Area ³
	1 hour		
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	No State Standard	Attainment
	1 Hour	Attainment	No Federal Standard
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	No State Standard	Attainment
	24 Hour	Attainment	Attainment
	1 Hour	Attainment	No Federal Standard
Lead	30 Day Average	Attainment	No Federal Standard
	Calendar Quarter	No State Standard	Attainment
Visibility Reducing Particles	8 Hour (10AM to 6PM, PST)	Unclassified	No Federal Standard
Sulfates	24 Hour	Attainment	No Federal Standard
Hydrogen Sulfide	1 Hour	Unclassified	No Federal Standard
1. Data reflects status as of March 19, 2009. 2. Unclassified; indicates data are not sufficient for determining attainment or nonattainment. 3. Maintenance Area (defined by U.S. Department of Transportation) is any geographic region of the United States previously designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA, as amended.			

2.4 California Environmental Quality Act (CEQA) Significance Thresholds

The California Environmental Quality Act has provided a checklist to identify the significance of air quality impacts. These guidelines are found in Appendix G of the CEQA guidelines and are as follows:

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:

- A:* Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?
- B:* Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?

- C:* Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard (PM₁₀, PM_{2.5} or exceed quantitative thresholds for O₃ precursors, oxides of nitrogen [NO_x] and Volatile Organic Compounds [VOCs])?
- D:* Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations?
- E:* Create objectionable odors affecting a substantial number of people?

2.5 SDAPCD Rule 20.2 – Air Quality Impact Assessment Screening Thresholds

The SDAPCD has established thresholds in Rule 20.2 for new or modified stationary sources. The County's Guidelines for Determining Significance and Report Format and Content Requirements incorporate screening level thresholds from Rule 20.2 for use in all County related Air Quality Impact Assessments (AQIA) and for determining CEQA air quality impacts. These screening criteria can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA. Also, since SDAPCD does not have AQI threshold for Volatile Organic Compounds (VOCs), it is acceptable to use the Coachella Valley VOC threshold from South Coast Air Quality Management District. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.3 below.

Table 2.3: Screening Level Thresholds for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})	100 and 55
Nitrogen Oxide (NO _x)	250
Sulfur Oxide (SO _x)	250
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75
Operational Emissions	
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})	100 and 55
Nitrogen Oxide (NO _x)	250
Sulfur Oxide (SO _x)	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75

Non Criteria pollutants such as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs) are also regulated by the SDAPCD. Rule 1200 (Toxic Air Contaminants - New Source Review) adopted on June 12, 1996, requires evaluation of potential health risks for any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants. The rule requires that projects that propose to increase cancer risk to between 1 and 10 in one million need to implement toxics best available control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. At no time shall the project increase the cancer risk to over 10 in one million. At no time shall the project increase the cancer risk to over 10 in one million or a health hazard index (chronic and acute) greater than one. Projects creating cancer risks less than one in one million are not required to implement T-BACT technology.

The U.S. Environmental Protection Agency (U.S. EPA) uses the term Volatile Organic Compounds (VOC) and the California Air Resources Board's (CARB's) Emission Inventory Branch (EIB) uses the term Reactive Organic Gases (ROG) to essentially define the same thing. There are minor deviations between compounds that define each term however for purposes of this study we will assume they are essentially the same due to the fact SCAQMD interchanges these words and because CalEEMod directly calculates ROG in place of VOC.

2.6 Crystalline Silica

Crystalline silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of crystalline silica but other forms include Cristobalite and tridymite. All three forms may become respirable size particles when workers chip, cut, drill, and blast or otherwise generate airborne dust (U.S. Department of Labor (OSHA), 2002). This dust can then be inhaled during normal human respiration. When humans are exposed to this dust for short-term or life-long periods both acute and chronic side effects can be experienced. Thresholds for both acute and chronic exposure are set by various agencies within California.

Chronic reference exposure levels (REL) are concentrations or doses at or below which adverse health effects are not likely to occur on a lifelong timeline. A central assumption is that a population threshold exists below which adverse effects will not occur in a population; however, such a threshold is not observable and can only be estimated. (Office of Environmental Health Hazard Assessment Risk Assessment Guidelines Part III, 2000).

The exposure period of concern in the development of chronic RELs is a full lifetime, which encompasses periods of potentially increased susceptibility to adverse health effects from chemical exposure, particularly during childhood and the later years of life. The chronic REL

is intended to be protective for individuals exposed continuously over their lifetime. From a practical standpoint, chronic exposure for humans is considered to be greater than 12% of a lifetime of 70 years or at least 8 years in 70 (Office of Environmental Health Hazard Assessment, August 2003). The OEHHHA does not list acute health risk exposure limits for crystalline silica but such thresholds are published by the Occupational Safety and Health Administration (OSHA).

Acute silicosis occurs after a few months or as long as 2 years following exposures to extremely high concentrations of respirable crystalline silica. Symptoms of acute silicosis include severe disabling shortness of breath, weakness, and weight loss, which often leads to death. OEHHHA has established a chronic REL of $3 \mu\text{g}/\text{m}^3$ for silica but has not published an acute REL (OEHHHA, 2014). Instead acute or short-term (over 8 hours per day 40 hour week) health risk exposure limits for humans are published by OSHA. Given this, it is assumed that all offsite receptors exposed to high concentrations of respirable silica could reasonably develop acute silicosis.

OSHA has an established Permissible Exposure Limit, or PEL, which is the maximum amount of crystalline silica to which workers may be exposed during an 8-hour work shift (29 CFR 1926.55, 1910.1000). Since the project's daily construction periods would be within 8-hours, the threshold is pertinent to the project and the surrounding community as a whole. The current PEL for silica is $0.05 \text{ mg}/\text{m}^3$ which is the same as $50 \mu\text{g}/\text{m}^3$ (Centers for Disease Control and Prevention (CDC), 2015).

Additionally OSHA also requires hazard communication training for workers exposed to crystalline silica, and requires a respirator protection program until engineering controls are implemented. Additionally, OSHA has a National Emphasis Program (NEP) for Crystalline Silica exposure to identify, reduce, and eliminate health hazards associated with occupational exposures.

2.7 Construction Equipment Emissions Regulations

The United States EPA first began adopting emission standards for Non-road Diesel Engines in 1994 which was published in the US Code of Federal Regulations, Title 40, Part 89. The EPA definition of non-road engines is based on the principle of mobility or portability and includes engines installed on self-propelled equipment, equipment that is propelled while performing its function or on equipment that is portable or transportable as indicated by the presence of wheels, skids, carrying handles, dolly, trailer or platform and includes diesel engines (Source: 40 CFR 1068.30). The regulations are better known as the Tier 1-4 standards with each Tier generally requiring more stringent emission standards for diesel engines. Originally, this was limited to equipment sizes exceeding 50 HP. However, in 1998 Tier 1 regulations were also adopted for equipment under 50 HP and more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier

1-3 standards are met through advanced engine design, with no or only limited use of exhaust gas after treatment (oxidation catalysts) (DieselNet, 2013). Tier 3 standards only apply to engines greater than 50 HP and Tier 1 and -2 standards are required for all portable engines.

On May 11, 2004, the EPA signed the final rule introducing Tier 4 emissions standards, which are to be phased in over the period of 2008-2015 under Federal Register 69 FR 38957-39273 (US EPA, 2004). The requirements of Tier 4 standards require that emissions of PM and NOx be further reduced by 90% which can be achieved through control technologies including advanced exhaust gas after treatment. Table 2.4 below identifies EPA Tier standards and compares each tiered standard with the previous tiered threshold to determine a best case control efficiency reduction.

Table 2.4: Tiered Emission Standards and NO_x and PM Reductions over Tier 1

Engine Power	Tier	CO (g/bhp·hr)	HC (g/bhp·hr)	NMHC+NO _x (g/bhp·hr)	NO _x (g/bhp·hr)	NO _x Percent Reduction from Lowest Tier	PM (g/bhp·hr)	PM Percent Reduction from lowest Tier
<11	1	6	-	7.8	-		0.75	-
	2	6	-	5.6	-	28.21%	0.6	20.00%
	4	6	-	5.6	-	28.21%	0.3	60.00%
11-25	1	4.9	-	7.1	-		0.6	-
	2	4.9	-	5.6	-	21.13%	0.6	0.00%
	4	4.9	-	5.6	-	21.13%	0.3	50.00%
25-50	1	4.1	-	7.1	-		0.6	-
	2	4.1	-	5.6	-	21.13%	0.45	25.00%
	4	4.1	-	5.6	-	21.13%	0.22	63.33%
50-100	1	-	-	-	6.9		-	-
	2	3.7	-	5.6	-	18.84%	0.3	-
	3	3.7	-	3.6	-	47.83%	0.3	-
50-75	4	3.7	-	3.5	-	49.28%	0.22	26.67%
75-100	4	3.7	0.14	-	0.3	93.62%	0.15	50.00%
100-175	1	-		-	6.9		-	-
	2	3.7		4.9	-	28.99%	0.22	-
	3	3.7		3	-	56.52%	0.22	-
100-175	4	3.7	0.14	-	0.3	93.62%	0.15	31.82%
175-300	1	8.5	1	-	6.9		0.4	-
	2	2.6		4.9	-	37.97%	0.15	62.50%
	3	2.6		3	-	62.03%	0.15	62.50%
175-300	4	2.6	0.14	-	0.3	94.43%	0.15	62.50%
300-600	1	8.5	1	-	6.9		0.4	-
	2	2.6		4.8	-	39.24%	0.15	62.50%
	3	2.6		3	-	62.03%	0.15	62.50%
300-750	4	2.6	0.14	-	0.3	94.43%	0.15	62.50%

Source: US EPA Non-road Emission Standards (Construction Equipment)
Percentage reductions were calculated on worst case standards only
Only the 2008 Tier 4 Standards are included in this table

In addition to EPA emission standards, the project equipment will be required to adhere to the In-Use Off-Road Diesel-Fueled Fleets regulation as defined by the California Air Resource Board (CARB) codified as Title 13 CCR §2449. The general purpose of these requirements is to establish emission thresholds which meet the most current federal or state thresholds and then provide permits to equipment meeting such thresholds.

2.8 Title 24 Standards

The California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods (California Energy Code, 2015)

The latest standards are Title 24 2013 and are effective as of July 1, 2014. Looking at the entire construction outlook for low-rise single-family detached homes, electricity use is reduced by 36.4 percent and 23.3 percent for multi-family uses and natural gas consumption is reduced by 6.5 percent for single family developments and 3.8% for multi-family structures (Architectural Energy Corporation (AEC), 2013). Nonresidential Newly Constructed Buildings would have a reduction from the 2008 Standards of 21.8 percent for electricity and 16.8 percent for natural gas.

2.9 Local Air Quality

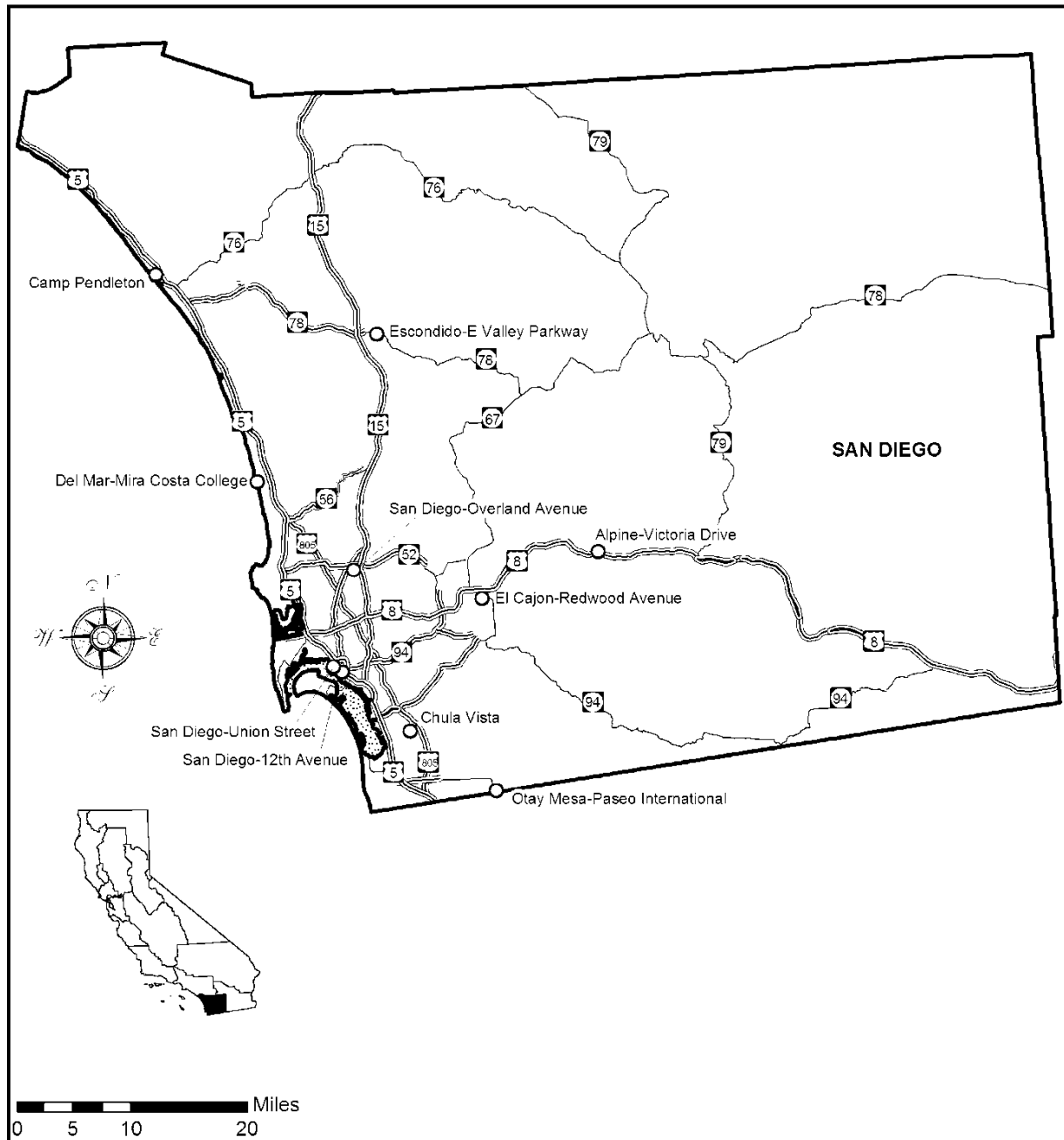
Criteria pollutants are measured continuously throughout the San Diego Air Basin. This data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The SDAPCD is responsible for monitoring and reporting monitoring data. The District operates 10 monitoring sites, which collect data on criteria pollutants. The proposed development project is closest to the Escondido Monitoring station which is located approximately 16.5 miles from the Project site. Table 2.5 on the following page identifies the criteria pollutants monitored at the aforementioned station.

Four additional sites collect meteorological data which is used by the District to assist with pollutant forecasting, data analysis and characterization of pollutant transport. Figure 2-A on Page 21 below shows the relative locations of the monitoring sites. SDAPCD published the five year air quality summary for all of the monitoring stations within the following link (SDAPCD, 2015).

Table 2.5: Three-Year Ambient Air Quality Summary near the Project Site

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2011	2012	2013
O ₃ (ppm)	Escondido-E Valley Parkway	1 Hour	0.09 ppm	-	0.10	0.08	0.08
		8 Hour	0.070 ppm	0.075 ppm	0.09	0.07	0.07
PM ₁₀ (µg/m3)		24 Hour	50 µg/m3	150 µg/m3	40	33	80
		Annual Arithmetic Mean	20 µg/m3	-	18.8	18.0	23.1
PM _{2.5} (µg/m3)		24 Hour	-	35 µg/m3	27	71	56.3
		Annual Arithmetic Mean	12 µg/m3	15 µg/m3	10.4	10.5	10.5
NO ₂ (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.013	0.012	0.012
		1 Hour	0.18 ppm	-	0.062	0.062	0.062
CO (ppm)		8 Hour	9 ppm	9 ppm	2.3	3.8	2.6
		1 Hour	35 ppm	20 ppm	3.5	4.4	3.2
All ambient emissions reported are assumed to be taken by the district in compliance with both the NAAQS and CAAQS. Methodologies for those measurements are discussed in Table 2.1 of this report.							

Figure 2-A: Ambient Air Quality Monitoring Stations within SDAB – CARB



3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod air quality model, which was developed by ENVIRON International Corporation for South Coast Air Quality Management District (SCAQMD) in 2013. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the project and uses methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is shown in **Attachment A** to this report.

Cancer Risk will be determined for Diesel Particulate Matter (DPM) at the point of maximum exposure for grading footprint of 175 Acres. The SCREEN3 dispersion model will be used to determine the concentration for air pollutants at any location near the pollutant generator. Additionally, the model will predict the maximum exposure distance and concentrations. The SCREEN3 input/output file for the proposed project is shown in **Attachment B** at the end of this report. The worst case exhaust emissions generated from the Project from construction equipment was utilized and calculated within the CalEEMod model. The worst case cancer risk if exposed to a DPM dose for 70 years is defined as:

$$CR_{DPM} = C_{DPM} \times URF_{DPM}$$

$$CR_{DPM} = C_{DPM} \times URF_{DPM}$$

Where, CR_{DPM} = Cancer risk from diesel particulate matter (probability on an individual developing Cancer)

C_{DPM} = Annual average DPM concentration in $\mu\text{g}/\text{m}^3$ (SCREEN3 predicts a 1-hr concentration and is corrected to an annual average by multiplying the 1-hr average by 0.08 (US EPA, 1992)

URF_{DPM} = the inhalation unit risk factor for diesel particulate was established by ARB as 300 in one million per continuous exposure of 1 $\mu\text{g}/\text{m}^3$ of DPM over a 70-year period (South Coast Air Quality Management District, August 2013).

Chronic risks are defined for DPM and crystalline silica and are determined by the hazard index. To calculate hazard index, the estimated concentrations are divided by their respective Reference Exposure Levels (REL) of 5 and 3 $\mu\text{g}/\text{m}^3$ respectively. When the total equals or exceeds one, a health hazard is presumed to exist.

Non-Cancer risks defined as chronic are defined for DPM and crystalline silica and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its Reference Exposure Levels (REL). When the total equals or exceeds one, a health hazard is presumed to exist. Chronic exposure to diesel exhaust or crystalline silica are not

expected since the construction schedule is less than 12% of 70 years which is the point when chronic exposure is calculated and the basis of how RELs are derived.

The available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer health risk guidance value. While the lung is a major target organ for diesel exhaust, studies of the gross respiratory effects of diesel exhaust in exposed workers have not provided sufficient exposure information to establish a short-term non-cancer health risk guidance value for respiratory effects (For the "Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant", April 22, 1998). As stated in Section 2.6, the acute non-cancer risk guidance from OSHA requires that exposure to silica has a permissible PEL of 50 µg /m³.

Typically, silica is estimated as a fraction of PM₁₀ which is approximately 10% of the total PM₁₀. This estimate has been utilized and accepted within the County such as was shown in the Gregory Canyon Final Engineering Evaluation (SAN DIEGO AIR POLLUTION CONTROL DISTRICT, 2013). The 10% estimate was derived from physical samples that were taken from roads within San Diego roads from 1991 – 1996. Results from those tests concluded that typical samples contained approximately 100,000 ppmw or 10% by weight.

3.2 Construction Assumptions

The Project grading would be expected to take approximately 27 months and would be expected to require significant blasting operations. It's expected that blasting operations will occur for six months long during the 27 month grading period. During blasting operations, grading operations would stop and it's expected that each blast operation would be expected to require between 10,000 - 14,000 lbs of Ammonium Nitrate for any given blast operation. The area of each blast is expected occur within a 20,000 sq-ft or (100-foot x 200-foot) area.

After rough grading is complete trenching and finish grading operations would take an additional three months which would be sufficient time to complete infrastructure earthwork including the underground sewage pumps. After the 30-month earthwork phase, the Project applicant would begin paving the site and building the fire station and residential units.

The residential units will be phased in accordance with necessary infrastructure improvements to support the residential units. The entire build out of the Project would be expected no sooner than 2025. Table 3.1 on the following page shows the expected timeframes for the construction processes for all the project infrastructure, facilities, improvements and residential structures at the proposed project location.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Dates	Quantity
Demolition	8/1/2017– 8/15/2017	
Excavator		3
Rubber Tired Dozer		2
Concrete Saw		1
Mass Site Grading	8/16/2017 – 10/1/2019	
Rubber Tired Dozers		5
Scrapers		4
Tractors/Loaders/Backhoes		4
Bore/Drill Rigs		2
Graders		2
Water Trucks		2
Trenching	10/2/2019– 12/1/2019	
Excavator		2
Other General Industrial Equipment		1
Tractor/Loader/Backhoes		1
Fine Site Grading	12/2/2019 – 2/1/2020	
Grader		2
Water Trucks		2
Dozer		1
Tractor/Loader/Backhoes		1
Paving	2/2/2020 – 4/04/2020	
Paving Equipment		2
Rollers		2
Pavers		1
Building Construction	2/2/2020 – 2/2/2025	
Forklift		3
Tractor/loader/backhoe		3
Crane		1
Generator		1
Welders		1
Architectural Coating	4/20/2020 – 2/2/2025	
This equipment list is based upon equipment inventory within CalEEMod. The quantity and types are based upon assumptions from Projects of similar size and scope in the County of San Diego.		

Blasting operations usually require a chemical material that is capable of extremely rapid combustion resulting in an explosion or detonation. These materials are usually mixtures of several ingredients but are often oxygen deficient as combustion reactions takes place which causes a formation of carbon monoxide and also to a lesser extent nitrogen oxides. For ammonium nitrate and fuel oil (ANFO) mixtures it is expected that carbon monoxide would be generated in quantities of 67 lbs per every ton of explosives and nitrogen oxides would be generated at 17 lbs per the same quantity (EPA, 1995).

Particulate matter from blasting can be estimated using Table 11.9-1 of the aforementioned EPA-AP 42 document. Typically, Silica is estimated as a fraction of PM₁₀ which is approximately 10% of the total PM₁₀. This estimate has been used and accepted within the County such as was shown in the Gregory Canyon Final Engineering Evaluation (Gregory Canyon, Ltd., 2013).

The 10% estimate was derived from physical samples that were taken from roads within San Diego roads from 1991 – 1996. Results from those tests concluded that typical samples contained approximately 100,000 ppmw or 10% by weight (D. Byrnes, 1999) blasting would be in the form of crystalline silica. PM₁₀ is estimated using the following equation:

$$PM_{10}(lb / Blast) = 0.000014 * (BlastArea(ft^2)) * 0.52$$

3.3 Operational Emissions

Once construction is completed the proposed project would generate emissions from daily operations which would include sources such as Area, Energy, Mobile, Waste and Water uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as onsite natural gas use. Finally, mobile or transportation related emissions are calculated in CalEEMod through the use of EMFAC2011. The Operational model is also shown in Attachment A at the end of this report.

The Project traffic engineer estimated that there will be 7,570 daily trips which were broken down within the Project traffic study (Source: Warner Ranch Traffic Impact Study-TM 5508 and GPA 06-009, KOA Corporation 2013). These traffic numbers were utilized within the CalEEMod analysis. In addition, the Market Study prepared for the project identified the project will include 246 workforce housing units. This will result in a 2.98% mobile emissions reduction. The model also estimates emission predictions for ROG, NOx, CO, SO₂, PM₁₀ and PM_{2.5} for area source assumptions. Additionally, it was assumed that an average of 10% of the structural surface area will be re-painted each year and 90% of all residential units to include hearth options. Furthermore, CalEEMod includes landscaping and consumer produce assumptions which would apply to this project.

Consumer product emissions are generated by a wide range of product categories, including air fresheners, automotive products, household cleaners, and personal care products. Emissions associated with these products primarily depend on the increased population associated with residential development. Default emission factors were utilized within the CalEEMod.

3.4 Micro Scale Operational Emissions

Air pollutant emissions related to project traffic have the potential to create new, or worsen existing localized air quality with respect to carbon monoxide (CO). These increased carbon monoxide "Hot Spots" are determined through the utilization of the ITS Transportation Project-Level Carbon Monoxide Protocol (Caltrans 1998) as well as the County.

In the event the proposed project traffic adds vehicular trips to either an intersection that operates at LOS E or F or any intersection where the project trips re-classifies the intersection level of service to LOS E or F and when peak-hour trips exceed 3,000 the Project must quantify CO levels (Source: County Of San Diego Guidelines For Determining Significance And Report Format And Content Requirements – March, 2007). The ITS Transportation Project-Level Carbon Monoxide Protocol recommends running the EMFAC model to determine emission rates for the Project year as well as conduct dispersion modeling utilizing CALINE to determine worst-case emission concentrations. The EMFAC2011 and CALINE models are shown in **Attachments C and D**, respectively.

At no time shall the Project increase emission levels above ambient air quality standards. For purposes of this analysis, the CAAQS would be considered the most stringent with CO limits of 9 parts per million (PPM) for the one hour standard and 20 PPM CO for the 8-hour standard. Additionally, the CALINE model incorporated the highest 8-hour air quality data as collected in Escondido which was 3.8 PPM in 2012 and the one-hour ambient data was 4.4 PPM. It should be noted also, that the Carbon Monoxide Persistence factor is 0.7 for carbon monoxide, dividing the 8-hour CO concentrations by the persistence factor would yield the one-hour emission level (EPA 1992).

3.5 Odor Impacts (Onsite)

Potential onsite odor generators would include short-term construction odors from activities such as paving and possibly painting. Given this, short-term construction odors would not be considered an impact.

Once the project is fully operational, odors may be generated from the onsite sewage lift station. The Applicant will fully mitigate the odors through the following methods:

- 1. To prevent odors, the sewage lift station will be constructed below ground and will be covered such that odors gases cannot escape.*
- 2. Sewage will be pumped out regularly to prevent foul odors from forming.*

Given this the Project will not have a potential to create offensive odors and would therefore not be considered an impact under CEQA. Additionally, the project would have a potential to

produce odors at the proposed sewage lift station but can be fully mitigated by ensuring that the sewage pump station is completely enclosed and construction below ground level.

3.6 Odor Impacts (Offsite)

Odor producing projects from offsite sources such as the nearby Gregory Canyon Landfill or the Paula Wastewater treatment facility are expected to generate odors but odors from these facilities are not expected impact any proposed uses within the Warner Ranch development. This conclusion is based on the fact that each of the potential odor generators are in excess of one mile away and have significant intervening topography separating them from the proposed project. Furthermore, with respect to the Gregory Canyon Landfill, the focused air quality study indicated that odors would be generated but due to the operation plan, as waste is brought in it is covered with soil immediately and would therefore not create odor impacts. (Source: Gregory Canyon Landfill/Final EIR – December 2002).

4.0 FINDINGS

4.1 Construction Findings

The Project grading would be expected to take approximately 27 months and would be expected to require significant blasting operations. The grading operations are expected to take up to six months long with blasting to occur on a regular basis. During blasting operations, grading operations would stop and it's expected that each blast operation would be expected to require between 10,000 - 14,000 lbs of Ammonium Nitrate for any given blast operation.

After rough grading is complete trenching and finish grading operations would take an additional three months. After the 30-month grading period, the Project applicant would begin paving the site and building the fire station, and residential units. The residential units will be phased in accordance with necessary infrastructure improvements to support the residential units. The entire build out of the Project would be expected no sooner than 2021. Additionally, architectural coatings could be applied concurrent to building construction.

As a design feature, the proposed project would utilize no more than 6 tons of ammonium nitrate daily which would generate up to 402 lbs of carbon monoxide and up to 102 lbs of nitrogen oxides during a blast utilizing 6 tons of ammonium nitrate. These quantities would be additive to the mass grading operations for the entire project site and could be added to the worst-case mass grading daily CO and NO_x output.

Additional particulates derived from each blast is estimated over a 20,000 SF area roughly 100-foot by 200-foot in dimension. Given this, it's estimated that each blast would generate 20.59lb/blast as is shown in the equation below:

$$PM_{10}(lb / Blast) = 0.000014 * (20,000 ft^2)^{1.5} * 0.52 = 20.59(lb / blast)$$

Table 4.1 on the following page shows the expected construction emissions as well as calculated increases of CO, NO_x and PM₁₀ from blasting. Based on these numbers, the project would exceed SDAPCD standards for NO_x and would require mitigation to comply. It was found that utilization of Tier III certified diesel equipment for off-road engines would reduce NO_x impacts to below significance. Table 4.2 on the following page shows the total emissions and mitigated results. Additionally, since the predicted mitigated PM10 from dust would be 47.79 lbs per day, it's expected that silica emissions would be only 4.78 lbs per day.

Table 4.1: Expected Construction Emissions Summary (Unmitigated)

Year	ROG	NO _x	CO	SO ₂	PM ₁₀ (Dust)	PM ₁₀ (Exhaust)	PM ₁₀ (Total)	PM _{2.5} (Dust)	PM _{2.5} (Exhaust)	PM _{2.5} (Total)
2017	14.46	164.70	107.47	0.15	27.12	7.36	34.48	14.63	6.78	21.41
2018	12.77	142.64	96.13	0.15	27.12	6.30	33.41	14.63	5.79	20.43
2019	11.93	130.57	91.00	0.15	27.12	5.73	32.84	14.63	5.27	19.90
2020	24.98	38.36	53.54	0.12	10.35	1.86	11.98	3.81	1.73	5.30
2021	24.63	25.96	44.65	0.11	5.20	1.18	6.38	1.39	1.11	2.51
2022	24.33	23.27	43.19	0.11	5.20	1.02	6.22	1.39	0.96	2.35
2023	24.07	21.24	41.87	0.11	5.20	0.90	6.09	1.39	0.84	2.24
2024	23.87	20.10	40.68	0.11	5.20	0.80	6.00	1.39	0.75	2.15
2025	23.69	18.96	39.83	0.11	5.20	0.71	5.91	1.39	0.66	2.06
Blasting Emissions		102	402		20.59		20.59			
Construction w/ Blasting (Maximum)	24.98	266.70	509.47	0.15	47.71	7.36	55.07	14.63	6.78	21.41
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
SDAPCD Impact?	No	Yes	No	No	-	-	No	-	-	No

Table 4.2: Expected Construction Emissions Summary (Mitigated)

Year	ROG	NO _x	CO	SO ₂	PM ₁₀ (Dust)	PM ₁₀ (Exhaust)	PM ₁₀ (Total)	PM _{2.5} (Dust)	PM _{2.5} (Exhaust)	PM _{2.5} (Total)
2017	2.07	50.87	80.90	0.15	27.12	1.91	29.03	14.63	2.00	16.64
2018	2.35	54.98	83.43	0.15	27.12	2.10	29.21	14.63	2.17	16.81
2019	2.48	57.16	84.52	0.15	27.12	2.19	29.30	14.63	2.26	16.89
2020	23.02	21.21	56.07	0.12	10.35	0.85	11.20	3.81	0.85	4.66
2021	22.90	10.68	45.54	0.11	5.20	0.27	5.47	1.39	0.26	1.65
2022	22.81	9.91	44.29	0.11	5.20	0.27	5.47	1.39	0.26	1.65
2023	22.70	9.21	43.10	0.11	5.20	0.26	5.46	1.39	0.25	1.65
2024	22.61	9.09	41.98	0.11	5.20	0.26	5.46	1.39	0.25	1.65
Blasting Emissions		102	402		20.59		20.59			
Construction w/ Blasting Mitigated (Maximum)	23.02	159.16	486.52	0.15	47.71	2.19	49.89	14.63	2.26	16.89
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
SDAPCD Impact?	No	No	No	No	-	-	No	-	-	No

Federal Mine Safety and Health Administration (MSHA) rules require the use of water injection when drilling the blasting holes in order to control drilling dust. Prior to drilling, the project will be removing overburden, which will lessen the amount of fine material that can become airborne by blasting. Finally, any nearby neighbors will be notified of all blasts before each occurrence.

Given these findings construction impacts could be fully mitigated using the following mitigation measures and best management practices:

- *Construction Mitigation Measure 1: Ensure that all heavy diesel construction equipment is classified as Tier III at a minimum to limit ROG emissions. This will also satisfy health risk impacts related to diesel particulates under T-BACT guidelines.*
- *Construction Mitigation Measure 2: Ensure that equipment during building construction meet Tier IV guidelines at a minimum to limit ROG emissions. This will also satisfy health risk impacts related to diesel particulates under T-BACT guidelines.*
- *Construction Mitigation Measure 3: During Construction only Low VOC paints shall be utilized (150 g/l or less).*
- *Best Management Practice 1: Prior to drilling for blasting purposes, the project shall remove overburden to reduce the potential of fine particulates becoming airborne.*
- *Best Management Practice 2: Water injection shall be used during drilling the blasting holes in order to control drilling dust.*
- *Best Management Practice 3: Wet all blast areas prior to blasting.*
- *Best Management Practice 4: Nearby neighbors shall be notified of all blasts before each occurrence.*
- *Best Management Practice 5: Comply with SDAPCD's fugitive dust rules and fugitive dust control measures outlined in Section 87.426 of the County's Grading Ordinance and (County of San Diego, 2012)*

4.2 Health Risk

Based upon this annual air quality modeling data from construction, we find that cumulative total PM₁₀ exhaust emissions would be as high 0.7941 tons over 2,048 construction days. Given this, it can be expected that exhaust emissions would average out to be 0.775 lb/day. Converting pounds (lbs) per day to grams per second is shown below:

$$\frac{0.775 \frac{\text{lb}}{\text{day}} * 453 \frac{\text{grams}}{\text{lb}}}{28,800 \frac{\text{seconds}}{\text{Construction day}}} = 0.0122 \frac{\text{grams}}{\text{second}}$$

The average emission rate over the grading area is 1.72x10⁻⁸ g/m²/s, which was calculated as follows:

$$\frac{0.0122 \frac{\text{grams}}{\text{second}}}{175 \text{ acres} * 4,046 \frac{\text{meters}^2}{\text{acre}}} = 1.72 * 10^{-8} \frac{\text{grams}}{\text{meters}^2 \text{ second}}$$

Utilizing the SCREEN3 dispersion model, we find that the peak maximum 1-hr concentration is 1.805 µg/m³ during grading. Converting the peak 1-hr concentration to an annual concentration reduces the concentration to 0.144 µg/m³. Therefore, utilizing the risk equation identified in Chapter 4 we calculate that the cancer dose over a 70 year continuous period would be:

$$CR_{\text{DPM-70yr dose}} = 0.0003 \times 0.1444 = 0.0000433$$

The proposed project is expected to generate maximum DPM during grading and construction of the project, which is expected to be approximately 2,048 workdays. This would work out to 682.7-24 hr days out of 70 years or 682.7/25,550 or 0.0267 times the CR_{DPM}. If one million people were exposed to the maximum DPM for the duration of grading, the estimated increased cancer risk could be:

$$0.0267 \times 0.0000433 \times 1,000,000 = 1.15 \text{ individuals per million}$$

The maximum DPM is projected to occur approximately 600 meters from the geometric center of the Project. The numerical number of individuals exposed to DPM of this concentration from the project would be less than ten in one million. Therefore, because the project increases the risk to more than one person per million the project would be required to utilize equipment meeting requirements of T-BACT such as using diesel particulate filters or catalytic converters and utilizing Tier III certified equipment at a minimum.

The SCREEN3 dispersion model outputs are attached to this report. Also, it should be noted that every other receptor point would have a risk level lower than 1.15 individuals per 1 million exposed. It should be noted that this risk level is considered below significance by SDAPCD given the project will utilize T-BACT technology.

There are also known acute and chronic health risks associated with diesel exhaust which are considered non-cancer risks. This risk is calculated based on methods identified in Section 3.1. From this we find that the annual concentration of 0.144 µg/m³ divided by the REL of 5 µg/m³ yields a Health Hazard Index of 0.028 which is less than one. Therefore non-cancer risks are not expected and all acute and chronic health risks are considered less than significant.

Short term acute health risks associated with crystalline silica can begin whenever one is exposed to concentrations greater than 50 µg/m³. It's assumed that respirable silica concentration rates would be roughly 10% of the total PM₁₀ dust (discussed in section 3.1 above) produced onsite during a maximum PM₁₀ grading day. Given this, since PM₁₀ emissions would be as high as 27.11 lbs per construction day, PM₄ emissions could be as high as 2.71 lbs per day or 0.0426 grams per second over a worst-case construction day (8-hours):

$$\frac{2.71 \frac{\text{lb}}{\text{day}} * 453 \frac{\text{grams}}{\text{lb}}}{28,800 \frac{\text{seconds}}{\text{Construction day}}} = 0.0426 \frac{\text{grams}}{\text{second}}$$

Utilizing SCREEN3 it was determined that the dispersed 1-hour concentration of silica is 6.318 µg/m³ and 4.4226 over 8-hrs (US EPA, 1992) or 0.7 x 6.318, which is less than the NIOSH TWA threshold of 50 µg/m³. Therefore, the project would not create significant short-term non-cancer risks during a worst-case construction day for a week.

The project would generate silica during grading phases of the project primarily whenever soil is moved however; soil will be wetted regularly per the County's grading ordinance. Furthermore, the project would only emit silica emissions during the grading phase of the project which is expected for 1,173 workdays or 391-24 hour days. Chronic exposure is based on long-term exposure which is defined as 12% of a lifetime, or about eight years for humans. Since the proposed project would not expose humans to silica or DPM emissions beyond two years normalized to 24 hour exposure days, chronic exposure is not expected.

4.3 Operational Findings

Based on the Project's traffic study the proposed Project could add as many as 7,570 daily trips once the Project is fully operational sometime in the year 2025. Worst-case estimates assume that at least some of the residential buildings will be operational in 2020 and full buildout operations will be sometime in 2025. In all reality full build out may not occur for years after the expected completion of construction expected in early-2025. Additionally, for purposes of this analysis, the expected daily pollutant generation can be calculated utilizing the rural trip assumptions.

The expected daily pollutant generation can be calculated utilizing the product of the average daily miles traveled and the expected emissions inventory calculated by EMFAC2011; CalEEMod performs this calculation. The daily pollutants calculated are shown in Table 4.3 on the following page. All mitigation recommendations were based on

CalEEMod default mitigation measures. Based upon these calculations, it was found that significant impacts for ROG, CO, PM₁₀ and PM_{2.5} impacts would be expected under normal operation of the proposed project. It was found that ROG impacts could be fully mitigated or reduced to below significance using standard mitigation methodologies shown below.

- *Design Mitigation Measure 1 - provide only Natural Gas Hearth Options*

Table 4.3: Expected Daily Pollutant Generation

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer Scenario (Lb/Day)						
Area	1,232.58	16.94	1,534.81	0.58	206.96	206.95
Energy	0.54	4.62	1.98	0.03	0.37	0.37
Mobile	20.70	41.55	224.12	0.86	59.46	16.46
Total (Unmitigated)	1,253.82	63.11	1,760.92	1.47	266.79	223.79
SDAPCD Thresholds	75	250	550	250	100	55
Significant?	Yes	No	Yes	No	Yes	Yes
Area	40.23	0.74	64.36	0.00	1.30	1.29
Energy	0.54	4.62	1.98	0.03	0.37	0.37
Mobile	20.70	41.55	224.12	0.86	59.46	16.46
Total (Mitigated)	61.47	46.92	290.47	0.90	61.14	18.12
Significant?	No	No	No	No	No	No
Winter Scenario (Lb/Day)						
Area	1,232.58	16.94	1,534.81	0.58	206.96	206.95
Energy	0.54	4.62	1.98	0.03	0.37	0.37
Mobile	21.67	44.30	228.73	0.82	59.47	16.46
Total (Unmitigated)	1,254.79	65.86	1,765.52	1.43	266.80	223.79
SDAPCD Thresholds	75	250	550	250	100	55
Significant?	Yes	No	Yes	No	Yes	Yes
Area	40.23	0.74	64.36	0.00	1.30	1.29
Energy	0.54	4.62	1.98	0.03	0.37	0.37
Mobile	21.67	44.30	228.73	0.82	59.47	16.46
Total (Mitigated)	62.45	49.66	295.08	0.85	61.14	18.13
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within CalEEMod						

The proposed project would begin building construction in 2020 and would have units ready for purchase sometime in 2020. At this time, at least some of the residential buildings would be operational concurrent to building construction of other units. Given this, there is a potential for overlap between construction and operational activities as the project is built

out. It is not directly known how many residential units will be occupied while concurrent building-construction activities are occurring.

For combined construction/operation calculations, it was assumed that construction emission would be the same each year as building crews are to remain constant. Operations are expected to be variable and linear with respect to occupancy and would be a function of the worst-case operational emissions at buildout (as predicted by CalEEMod) multiplied by the uniform fractional build out each year starting in 2019. It's assumed that 20% would be built by the end of 2020, 35% in 2021, 50% in 2022, 65% in 2023, 80% in 2024 and full occupancy in 2025. The resultant emissions are shown in Table 4.4 and 4.5 below and on the following page.

Table 4.4: Combined Mitigated Operational and Construction Emissions (Summer)

Year	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2020 (20% occupancy)	37.28	47.74	111.63	0.30	22.58	5.48
2021 (35% occupancy)	46.14	42.38	146.32	0.43	26.60	7.52
2022 (50% occupancy)	55.06	46.73	188.42	0.56	35.77	10.08
2023 (65% occupancy)	64.03	51.74	230.68	0.70	44.94	12.68
2024 (80% occupancy)	73.05	57.63	273.06	0.83	54.11	15.30
2025 - 100 % Operational (No Combined Construction Emissions)	61.47	46.92	290.47	0.90	58.56	2.57
SDAPCD Thresholds	75	250	550	250	100	55
Impact?	No	No	No	No	No	No

Table 4.5: Combined Mitigated Operational and Construction Emissions (Winter)

Year	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2020 (20% occupancy)	37.47	48.29	112.55	0.29	22.58	5.48
2021 (35% occupancy)	46.48	43.34	147.93	0.41	26.60	7.52
2022 (50% occupancy)	55.55	48.10	190.72	0.54	35.77	10.08
2023 (65% occupancy)	64.66	53.52	233.67	0.67	44.94	12.68
2024 (80% occupancy)	73.83	59.83	276.74	0.80	54.11	15.30
2025 - 100 % Operational (No Combined Construction Emissions)	62.45	49.66	295.08	0.85	61.14	18.13
SDAPCD Thresholds	75	250	550	250	100	55
Impact?	No	No	No	No	No	No

Given the findings no significant impacts are expected. Mitigation measures previously identified (i.e. Tier IV equipment during building construction and natural gas hearth options) in this report will be sufficient to fully mitigate all emissions to levels considered less than significant by the County of San Diego and would therefore comply with CEQA. It should be noted that once construction is complete in 2025, operational emissions would be all that remain.

4.4 Micro-Scale Operational Findings

The Project traffic study reported that the proposed Project would re-classify only three intersections to a LOS of E or worse directly. The intersections directly impacted by the Project are SR-76 and East Vista Way during the AM and PM peak hours as well as the Interstate 15 and SR-76 SB and NB Ramps. However, only the intersection of SR-76 and East Vista Way is expected to operate with over 3,000 vehicles during peak hour periods so the Interstate 15 ramps will not be further analyzed.

Micro-Scale operations during a cumulative plus Project scenario show that the Project will be adding Project trips to 12 separate intersections during the AM Peak hour and 13 intersections during the PM peak hour timeframes. It should be noted that only seven intersections west of Interstate 15 operate with over 3,000 vehicles during both the AM and PM hours and two intersections east of the 15 operate with over 3,000 vehicles during only the PM hours. Table 4.6 on the following page identifies these intersections and the worst

case delay combined with the highest number of vehicles would be considered worst case CO generators and should be analyzed with CALINE4 to determine if mobile source CO emissions are less than the CAAQS.

Table 4.6: Intersections LOS E or Worse and Delay

Intersection	Scenario	AM/PM	Delay (Seconds)	Number of Vehicles
SR 76 and E. Vista Way	Existing plus Project	AM	88.1	3,050
		PM	71.9	3,433
SR 76 and E. Vista Way	Cumulative plus Project	AM	256.6	4,815
		PM	253.9	5,672
SR 76 and N. River Road	Cumulative plus Project	AM	226.7	4,307
		PM	318.4	4,945
SR 76 and Olive Hill Road	Cumulative plus Project	AM	139.3	5,761
		PM	211.1	6,499
SR 76 and S. Mission Road	Cumulative plus Project	AM	188.9	5,617
		PM	290.7	6,813
SR 76 and Gird Road	Cumulative plus Project	AM	173.4	4,154
		PM	251.7	4,888
SR 76 and Old Highway 395	Cumulative plus Project	AM	162.7	3,789
		PM	246.5	5,557
I-15 SB Ramps and SR 76	Cumulative plus Project	AM	221.1	3,796
		PM	357.9	5,002
I-15 NB Ramps and SR 76	Cumulative plus Project	AM	127.7	3,019
		PM	272.9	4,196

The CALINE4 model was set up to show a typical intersection with a North, East, South and West segment extending a typical 50-meters in every direction. Also, segment volumes were taken from the Peak Hour turning movements within the traffic study for the intersections exceeding the screening thresholds. Receptors were assumed to be roughly 25-feet to each roadway.

The EMFAC2011 model was run to determine the emission factors for the 2018 (Worst-Case Early Build out Year) utilizing an average 50 degree Fahrenheit and 50% humidity. Additionally, the CALINE4 dispersion model was run for the two worst-case intersections along SR-76 exceeding the County screening thresholds identified above in Table 4.6 as **bold text**. Table 4.7 below identifies both the 1-hour emission concentration predictions and the 8-hour average after utilizing the carbon dioxide persistence factor of 0.7. Based on model output results, no CO impacts are expected for the worst-case Cumulative plus

Project intersections which essentially determines that all remaining intersections would also comply with the CAAQS.

Table 4.7: Expected Carbon Monoxide Hot Spot Concentration Levels

Intersection	Existing plus Cumulative plus Project (Worst Case)				
	Vehicles Per Hour		Predicted Concentration PPM		
	AM	PM	AM	PM	8HR
SR 76 and S. Olive Hill Road	5,761	6,499	4.7	4.9	3.4
SR 76 and S. Mission Road	5,617	8,813	4.4	4.5	3.1
CAAQS - Significant Thresholds?			20	20	9
Significant			No	No	No
Emission levels taken from EMFAC 2011					
Traffic Volumes obtained from Project Traffic Study (KOA-2013)					

4.5 Odor Impact Findings

Potential onsite odor generators would include short-term construction odors from activities such as paving and possibly painting. Given this, short-term construction odors would not be considered an impact.

Once the project is fully operational, odors may be generated from the onsite sewage lift station. The Applicant will fully mitigate the odors through the following methods:

- 1. To prevent odors, the sewage lift station will be constructed below ground and will be covered such that odors gases cannot escape.*
- 2. Sewage will be pumped out regularly to prevent foul odors from forming.*

Given this the Project will not have a potential to create offensive odors and would therefore not be considered an impact under CEQA. Additionally, the project would have a potential to produce odors at the proposed sewage lift station but can be fully mitigated by ensuring that the sewage pump station is completely enclosed and construction below ground level.

Cumulative impacts

The project is proposing a Specific Plan and associated General Plan Category change to 21 (SPA, with a density of 2.33 du/ac) and zoning to S88 with a 1.52 dwelling unit per acre density, the proposed Project is a higher density Project which was not accounted for in the County's General plan. Given this status, the Project would not have been considered in the

County's SIP. This impact is unavoidable and would need overriding consideration by the County Supervisors for approval.

4.6 Conclusion of Findings

The Project is proposing a Specific Plan and associated General Plan Category change to 21 (SPA, with a proposed density of 2.33 du/ac) and zoning to S88 with a 1.52 dwelling unit per acre density. The proposed Project is a higher density project which was not accounted for in the County's General Plan. Given this status, the Project would not have been completely considered in the County's SIP. According to SANDAG, the total cumulative housing projected for the Pauma Sub regional Area for 2020 is 2,637 housing units which is only 167 units more than 2008 forecasts by SANDAG. This impact is unavoidable and would need overriding consideration by the County Supervisors for approval.

During construction of the proposed Project, fugitive dust emissions will be expected during grading, heavy equipment usage, and from construction workers commuting to and from the site. During short-term construction activities, the Project would exceed NOx thresholds established by the San Diego Air Pollution Control District (SDAPCD) and will require mitigation. Furthermore, the project would be required to implement BMP practices to further limit fugitive dust per the County's grading ordinance requirements. It was found that the following mitigation measures and BMPs will reduce construction impacts to less than significant.

- *Construction Mitigation Measure 1: Ensure that all heavy diesel construction equipment is classified as Tier III at a minimum to limit ROG emissions. This will also satisfy health risk impacts related to diesel particulates under T-BACT guidelines.*
- *Construction Mitigation Measure 2: Ensure that equipment during building construction meet Tier IV guidelines at a minimum to limit ROG emissions. This will also satisfy health risk impacts related to diesel particulates under T-BACT guidelines.*
- *Construction Mitigation Measure 3: During Construction only Low VOC paints shall be utilized (150 g/l or less).*
- *Best Management Practice 1: Prior to drilling for blasting purposes, the project shall remove overburden to reduce the potential of fine particulates becoming airborne.*
- *Best Management Practice 2: Water injection shall be used during drilling the blasting holes in order to control drilling dust.*
- *Best Management Practice 3: Wet all blast areas prior to blasting.*
- *Best Management Practice 4: Nearby neighbors shall be notified of all blasts before each occurrence.*
- *Best Management Practice 5: Comply with SDAPCD's fugitive dust rules and fugitive dust control measures outlined in Section 87.426 of the County's Grading Ordinance (County of San Diego, 2012)*

Additionally, emissions will be generated from both area and operational sources by the proposed Project which are the result of Project generated traffic, landscaping maintenance equipment, consumer products, and annual maintenance and painting to name a few. ROG impacts will be at their peak during concurrent construction and operations through Buildout. ROG sources are from construction activities, vehicular trips, area operations to include hearth usage, architectural coatings, and energy usage. Mitigation measures requiring the project construction team to use Tier III equipment during grading and Tier IV equipment during building construction were found to reduce these impacts to below significance. The project would also be required to implement provided only natural gas hearth options within residential units.

- *Operations Mitigation Measure 1: Provide only natural gas hearth options within residential units.*

Furthermore, based upon our analysis for micro scale CO emissions during vehicular operations on impacted intersection, no impacts either direct or cumulative are expected. No additional mitigation measures are necessary per CEQA guidelines.

Finally, the proposed Project would not be expected to generate any short term construction impacts with regards to offensive odors but would have a potential to cause significant odor impacts at the sewage lift station and would require the following mitigation measures to comply.

- *Operations Mitigation Measure 2: To prevent odors, the sewage lift station will be constructed below ground and will be covered such that odorous gases cannot escape.*
- *Operations Mitigation Measure 3: Sewage will be pumped out regularly to prevent foul odors from forming.*

5.0 References

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6.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the air quality environment and impacts within and surrounding the proposed Warner Ranch development. This report was prepared utilizing the latest emission rates and reduction methodologies. This report was prepared by Jeremy Loudon; a County approved CEQA Consultant for Air Quality.

DRAFT

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Date November 22, 2016

ATTACHMENT A

CalEEMod

Warner Ranch Residential Development (2025 Mitigated)
San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	1.00	10,000.00	10
City Park	4.23	Acre	4.23	184,258.80	0
Condo/Townhouse	246.00	Dwelling Unit	11.77	246,000.00	704
Single Family Housing	534.00	Dwelling Unit	159.00	961,200.00	1527

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per Project Specifications

Land Use - Per project description

Construction Phase - Estimates per project description

Off-road Equipment -

Off-road Equipment - Estimates per project description

Off-road Equipment - Estimates per project description

Off-road Equipment - Off-Highway Trucks represent Water Trucks as required per project description.

Off-road Equipment - Per project description

Off-road Equipment - Off-Highway trucks represent Water Trucks needed per project description.

Off-road Equipment - Estimates per Project requirements

Off-road Equipment - Estimates per project description.

Trips and VMT - Estimates per project description

Demolition -

Architectural Coating - Estimates per project description

Vehicle Trips - Updated per traffic study

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - 150 g/l emission factor is typical for all coatings in San Diego

Energy Use - User defined subtype represents project's proposed Fire Station.

Water And Wastewater - User Defined water usage refers to project's Fire House. City park water use was derived using California Department of Water Resources 2009 model per equation in report (4,406,008 GPY)

Solid Waste - User Defined Commercial is for the Firehouse. It's estimated that 2.91 residents per multi-family unit and since 10 firefighters are assumed to live in the firehouse, $10/2.91=3.43x$ the waste of multi-family is 0.46 tons/year.

Construction Off-road Equipment Mitigation - Proposed mitigation

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 13% additional beyond the 20% already assumed by the County.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150

tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
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tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	310.00	554.00
tblConstructionPhase	NumDays	310.00	45.00
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tblConstructionPhase	PhaseEndDate	1/30/2025	1/31/2025
tblConstructionPhase	PhaseEndDate	4/8/2025	4/7/2020
tblConstructionPhase	PhaseStartDate	4/8/2020	4/23/2020
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tblConstructionPhase	PhaseStartDate	2/1/2025	2/3/2020
tblEnergyUse	LightingElect	0.00	0.43
tblEnergyUse	NT24E	0.00	38.50
tblEnergyUse	NT24NG	0.00	14.60
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tblGrading	AcresOfGrading	33.75	175.00
tblLandUse	LandUseSquareFeet	0.00	10,000.00
tblLandUse	LotAcreage	0.00	1.00

tblLandUse	LotAcreage	15.38	11.77
tblLandUse	LotAcreage	173.38	159.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2025
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	1.58
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tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
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tblTripsAndVMT	WorkerTripLength	16.80	10.80

tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80
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tblTripsAndVMT	WorkerTripNumber	15.00	25.00
tblVehicleTrips	CC_TTP	0.00	90.00
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tblVehicleTrips	DV_TP	0.00	11.00
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tblVehicleTrips	ST_TR	0.00	50.00
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tblVehicleTrips	SU_TR	6.07	8.00
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tblWater	IndoorWaterUseRate	0.00	223,478.30
tblWater	OutdoorWaterUseRate	5,039,966.11	4,406,008.00
tblWater	OutdoorWaterUseRate	0.00	140,888.50

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					
2017	14.4568	164.6986	107.4658	0.1535	27.1170	7.3645	34.4815	14.6339	6.7754	21.4093	0.0000	15,582.77 79	15,582.77 79	4.6603	0.0000	15,680.64 37
2018	12.7662	142.6363	96.1303	0.1535	27.1170	6.2963	33.4133	14.6339	5.7926	20.4265	0.0000	15,321.81 29	15,321.81 29	4.6571	0.0000	15,419.61 26
2019	11.9251	130.5740	91.0009	0.1535	27.1170	5.7272	32.8442	14.6339	5.2691	19.9030	0.0000	15,061.69 58	15,061.69 58	4.6541	0.0000	15,159.43 26
2020	24.9849	38.3550	53.5355	0.1200	10.3516	1.8582	11.9764	3.8100	1.7324	5.3048	0.0000	10,253.60 33	10,253.60 33	1.4874	0.0000	10,284.83 80
2021	24.6271	25.9575	44.6509	0.1132	5.1991	1.1806	6.3797	1.3943	1.1133	2.5076	0.0000	9,314.180 4	9,314.180 4	0.8244	0.0000	9,331.493 0
2022	24.3270	23.2733	43.1864	0.1132	5.1991	1.0177	6.2169	1.3943	0.9599	2.3543	0.0000	9,247.021 6	9,247.021 6	0.8127	0.0000	9,264.087 3
2023	24.0729	21.2395	41.8728	0.1131	5.1992	0.8957	6.0949	1.3944	0.8446	2.2390	0.0000	9,183.809 2	9,183.809 2	0.7998	0.0000	9,200.605 1
2024	23.8686	20.0981	40.6842	0.1131	5.1992	0.8002	5.9994	1.3944	0.7540	2.1484	0.0000	9,132.228 0	9,132.228 0	0.7900	0.0000	9,148.818 5
2025	23.6928	18.9613	39.8325	0.1131	5.1992	0.7059	5.9051	1.3944	0.6647	2.0591	0.0000	9,088.085 8	9,088.085 8	0.7818	0.0000	9,104.502 9
Total	184.7215	585.7937	558.3595	1.1461	117.6985	25.8465	143.3115	54.6834	23.9061	78.3519	0.0000	102,185.2 148	102,185.2 148	19.4676	0.0000	102,594.0 337

2.1 Overall Construction (Maximum Daily Emission)

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					
2017	2.0666	50.8675	80.9025	0.1535	27.1170	1.9123	29.0293	14.6339	2.0037	16.6376	0.0000	15,582.7779	15,582.7779	4.6603	0.0000	15,680.6437
2018	2.3508	54.9780	83.4262	0.1535	27.1170	2.0954	29.2124	14.6339	2.1722	16.8061	0.0000	15,321.8129	15,321.8129	4.6571	0.0000	15,419.6126
2019	2.4806	57.1638	84.5234	0.1535	27.1170	2.1871	29.3041	14.6339	2.2566	16.8905	0.0000	15,061.6958	15,061.6958	4.6541	0.0000	15,159.4326
2020	23.0174	21.2087	56.0742	0.1200	10.3516	0.8474	11.1990	3.8100	0.8473	4.6573	0.0000	10,253.6032	10,253.6032	1.4874	0.0000	10,284.8380
2021	22.9010	10.6763	45.5391	0.1132	5.1991	0.2674	5.4665	1.3943	0.2571	1.6514	0.0000	9,314.1804	9,314.1804	0.8244	0.0000	9,331.4930
2022	22.8092	9.9143	44.2887	0.1132	5.1991	0.2660	5.4651	1.3943	0.2558	1.6501	0.0000	9,247.0215	9,247.0215	0.8127	0.0000	9,264.0873
2023	22.7010	9.2098	43.0959	0.1131	5.1992	0.2639	5.4630	1.3944	0.2539	1.6482	0.0000	9,183.8092	9,183.8092	0.7998	0.0000	9,200.6051
2024	22.6085	9.0877	41.9843	0.1131	5.1992	0.2645	5.4637	1.3944	0.2544	1.6488	0.0000	9,132.2280	9,132.2280	0.7900	0.0000	9,148.8185
2025	22.5463	8.9919	41.2150	0.1131	5.1992	0.2651	5.4643	1.3944	0.2550	1.6494	0.0000	9,088.0858	9,088.0858	0.7818	0.0000	9,104.5029
Total	143.4814	232.0980	521.0494	1.1461	117.6985	8.3689	126.0674	54.6834	8.5559	63.2393	0.0000	102,185.2147	102,185.2147	19.4676	0.0000	102,594.0336

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	22.33	60.38	6.68	0.00	0.00	67.62	12.03	0.00	64.21	19.29	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1,232.578 2	16.9360	1,534.810 7	0.5778		206.9559	206.9559		206.9498	206.9498	21,661.95 00	9,200.577 8	30,862.52 78	20.1014	1.7039	31,812.85 76
Energy	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.261 7	5,900.261 7	0.1131	0.1082	5,936.169 7
Mobile	20.7012	41.5519	224.1220	0.8648	58.5643	0.8993	59.4636	15.6321	0.8303	16.4624		62,489.69 41	62,489.69 41	2.0001		62,531.69 52
Total	1,253.820 3	63.1121	1,760.916 7	1.4720	58.5643	208.2289	266.7932	15.6321	208.1539	223.7860	21,661.95 00	77,590.53 36	99,252.48 36	22.2145	1.8121	100,280.7 225

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	40.2329	0.7406	64.3649	3.4000e- 003		1.2982	1.2982		1.2883	1.2883	0.0000	14,981.75 43	14,981.75 43	0.3959	0.2725	15,074.55 58
Energy	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.261 7	5,900.261 7	0.1131	0.1082	5,936.169 7
Mobile	20.7012	41.5519	224.1220	0.8648	58.5643	0.8993	59.4636	15.6321	0.8303	16.4624		62,489.69 41	62,489.69 41	2.0001		62,531.69 52
Total	61.4749	46.9168	290.4709	0.8977	58.5643	2.5712	61.1355	15.6321	2.4923	18.1244	0.0000	83,371.71 01	83,371.71 01	2.5090	0.3807	83,542.42 07

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	95.10	25.66	83.50	39.02	0.00	98.77	77.09	0.00	98.80	91.90	100.00	-7.45	16.00	88.71	78.99	16.69

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	8/1/2017	8/15/2017	5	11	
2	Mass Grading	Grading	8/16/2017	9/30/2019	5	554	
3	Trenching	Trenching	10/1/2019	11/28/2019	5	43	
4	Fine Grading	Grading	11/29/2019	1/30/2020	5	45	
5	Building Construction	Building Construction	2/3/2020	1/31/2025	5	1305	
6	Paving	Paving	2/3/2020	4/7/2020	5	47	
7	Architectural Coating	Architectural Coating	4/23/2020	1/31/2025	5	1247	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,444,580; Residential Outdoor: 814,860; Non-Residential Indoor: 291,388; Non-Residential Outdoor: 97,129 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Mass Grading	Bore/Drill Rigs	2	7.00	205	0.50
Mass Grading	Graders	2	7.00	174	0.41
Mass Grading	Off-Highway Trucks	2	7.00	400	0.38
Mass Grading	Rubber Tired Dozers	5	7.00	255	0.40
Mass Grading	Scrapers	4	7.00	361	0.48
Mass Grading	Tractors/Loaders/Backhoes	4	5.00	97	0.37
Trenching	Excavators	2	8.00	162	0.38
Trenching	Other General Industrial Equipment	1	8.00	87	0.34
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fine Grading	Graders	2	6.00	174	0.41
Fine Grading	Off-Highway Trucks	2	8.00	400	0.38
Fine Grading	Rubber Tired Dozers	1	8.00	255	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass Grading	19	53.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	450.00	115.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2017

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					0.0815	0.0000	0.0815	0.0124	0.0000	0.0124			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.467 4	4,036.467 4	1.1073		4,059.7211
Total	4.0482	42.6971	33.8934	0.0399	0.0815	2.1252	2.2067	0.0124	1.9797	1.9921		4,036.467 4	4,036.467 4	1.1073		4,059.721 1

3.2 Demolition - 2017**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	6.6800e-003	0.0909	0.0694	2.7000e-004	6.3400e-003	1.2200e-003	7.5600e-003	1.7400e-003	1.1300e-003	2.8600e-003		26.9397	26.9397	1.9000e-004		26.9436
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	0.0477	0.0559	0.6070	1.5600e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		125.2526	125.2526	6.0400e-003		125.3794
Total	0.0543	0.1468	0.6763	1.8300e-003	0.1296	2.1200e-003	0.1317	0.0344	1.9600e-003	0.0364		152.1923	152.1923	6.2300e-003		152.3231

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	lb/day										lb/day					
Fugitive Dust					0.0815	0.0000	0.0815	0.0124	0.0000	0.0124			0.0000			0.0000
Off-Road	0.3911	15.1663	26.6957	0.0399		0.6992	0.6992		0.7371	0.7371	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	0.3911	15.1663	26.6957	0.0399	0.0815	0.6992	0.7807	0.0124	0.7371	0.7495	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211

3.2 Demolition - 2017

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	6.6800e-003	0.0909	0.0694	2.7000e-004	6.3400e-003	1.2200e-003	7.5600e-003	1.7400e-003	1.1300e-003	2.8600e-003		26.9397	26.9397	1.9000e-004		26.9436
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	0.0477	0.0559	0.6070	1.5600e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		125.2526	125.2526	6.0400e-003		125.3794
Total	0.0543	0.1468	0.6763	1.8300e-003	0.1296	2.1200e-003	0.1317	0.0344	1.9600e-003	0.0364		152.1923	152.1923	6.2300e-003		152.3231

3.3 Mass Grading - 2017

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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	14.2884	164.5011	105.3213	0.1480		7.3614	7.3614		6.7725	6.7725		15,140.2187	15,140.2187	4.6389		15,237.6363
Total	14.2884	164.5011	105.3213	0.1480	26.6816	7.3614	34.0430	14.5184	6.7725	21.2909		15,140.2187	15,140.2187	4.6389		15,237.6363

3.3 Mass Grading - 2017

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	0.1684	0.1976	2.1446	5.5200e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		442.5592	442.5592	0.0213		443.0074
Total	0.1684	0.1976	2.1446	5.5200e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		442.5592	442.5592	0.0213		443.0074

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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	1.8982	50.6699	78.7579	0.1480		1.9091	1.9091		2.0008	2.0008	0.0000	15,140.2187	15,140.2187	4.6389		15,237.6363
Total	1.8982	50.6699	78.7579	0.1480	26.6816	1.9091	28.5907	14.5184	2.0008	16.5192	0.0000	15,140.2187	15,140.2187	4.6389		15,237.6363

3.3 Mass Grading - 2017**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	0.1684	0.1976	2.1446	5.5200e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		442.5592	442.5592	0.0213		443.0074
Total	0.1684	0.1976	2.1446	5.5200e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		442.5592	442.5592	0.0213		443.0074

3.3 Mass Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	12.6127	142.4560	94.1836	0.1480		6.2932	6.2932		5.7897	5.7897		14,895.8539	14,895.8539	4.6373		14,993.2368
Total	12.6127	142.4560	94.1836	0.1480	26.6816	6.2932	32.9748	14.5184	5.7897	20.3082		14,895.8539	14,895.8539	4.6373		14,993.2368

3.3 Mass Grading - 2018

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	0.1535	0.1803	1.9467	5.5100e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		425.9590	425.9590	0.0199		426.3759
Total	0.1535	0.1803	1.9467	5.5100e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		425.9590	425.9590	0.0199		426.3759

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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	2.1973	54.7977	81.4795	0.1480		2.0923	2.0923		2.1693	2.1693	0.0000	14,895.8539	14,895.8539	4.6373		14,993.2368
Total	2.1973	54.7977	81.4795	0.1480	26.6816	2.0923	28.7739	14.5184	2.1693	16.6877	0.0000	14,895.8539	14,895.8539	4.6373		14,993.2368

3.3 Mass Grading - 2018**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	0.1535	0.1803	1.9467	5.5100e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		425.9590	425.9590	0.0199		426.3759
Total	0.1535	0.1803	1.9467	5.5100e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		425.9590	425.9590	0.0199		426.3759

3.3 Mass 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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	11.7825	130.4074	89.2055	0.1479		5.7242	5.7242		5.2662	5.2662		14,651.1300	14,651.1300	4.6355		14,748.4747
Total	11.7825	130.4074	89.2055	0.1479	26.6816	5.7242	32.4058	14.5184	5.2662	19.7846		14,651.1300	14,651.1300	4.6355		14,748.4747

3.3 Mass 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	0.1427	0.1666	1.7953	5.5100e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		410.5658	410.5658	0.0187		410.9578
Total	0.1427	0.1666	1.7953	5.5100e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		410.5658	410.5658	0.0187		410.9578

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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	2.3379	56.9971	82.7281	0.1479		2.1840	2.1840		2.2537	2.2537	0.0000	14,651.1300	14,651.1300	4.6355		14,748.4747
Total	2.3379	56.9971	82.7281	0.1479	26.6816	2.1840	28.8657	14.5184	2.2537	16.7721	0.0000	14,651.1300	14,651.1300	4.6355		14,748.4747

3.3 Mass 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	0.1427	0.1666	1.7953	5.5100e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		410.5658	410.5658	0.0187		410.9578
Total	0.1427	0.1666	1.7953	5.5100e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		410.5658	410.5658	0.0187		410.9578

3.4 Trenching - 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	1.0281	10.1829	10.9879	0.0162		0.6001	0.6001		0.5521	0.5521		1,606.3215	1,606.3215	0.5082		1,616.9941
Total	1.0281	10.1829	10.9879	0.0162		0.6001	0.6001		0.5521	0.5521		1,606.3215	1,606.3215	0.5082		1,616.9941

3.4 Trenching - 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	0.0269	0.0314	0.3387	1.0400e-003	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		77.4652	77.4652	3.5200e-003		77.5392
Total	0.0269	0.0314	0.3387	1.0400e-003	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		77.4652	77.4652	3.5200e-003		77.5392

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	0.1419	6.2625	13.3810	0.0162		0.3308	0.3308		0.3478	0.3478	0.0000	1,606.3214	1,606.3214	0.5082		1,616.9941
Total	0.1419	6.2625	13.3810	0.0162		0.3308	0.3308		0.3478	0.3478	0.0000	1,606.3214	1,606.3214	0.5082		1,616.9941

3.4 Trenching - 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	0.0269	0.0314	0.3387	1.0400e-003	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		77.4652	77.4652	3.5200e-003		77.5392
Total	0.0269	0.0314	0.3387	1.0400e-003	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		77.4652	77.4652	3.5200e-003		77.5392

3.5 Fine 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					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	3.7947	38.7541	25.4011	0.0472		1.8007	1.8007		1.6566	1.6566		4,676.7203	4,676.7203	1.4797		4,707.7933
Total	3.7947	38.7541	25.4011	0.0472	10.1463	1.8007	11.9469	3.7555	1.6566	5.4122		4,676.7203	4,676.7203	1.4797		4,707.7933

3.5 Fine 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	0.0673	0.0786	0.8469	2.6000e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		193.6631	193.6631	8.8100e-003		193.8480
Total	0.0673	0.0786	0.8469	2.6000e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		193.6631	193.6631	8.8100e-003		193.8480

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					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	1.1190	21.1352	27.6500	0.0472		0.8460	0.8460		0.8460	0.8460	0.0000	4,676.7203	4,676.7203	1.4797		4,707.7933
Total	1.1190	21.1352	27.6500	0.0472	10.1463	0.8460	10.9922	3.7555	0.8460	4.6015	0.0000	4,676.7203	4,676.7203	1.4797		4,707.7933

3.5 Fine 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	0.0673	0.0786	0.8469	2.6000e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		193.6631	193.6631	8.8100e-003		193.8480
Total	0.0673	0.0786	0.8469	2.6000e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		193.6631	193.6631	8.8100e-003		193.8480

3.5 Fine Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	3.5348	35.0102	24.3470	0.0472		1.6233	1.6233		1.4935	1.4935		4,572.984 4	4,572.984 4	1.4790		4,604.043 3
Total	3.5348	35.0102	24.3470	0.0472	10.1463	1.6233	11.7696	3.7555	1.4935	5.2490		4,572.984 4	4,572.984 4	1.4790		4,604.043 3

3.5 Fine Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0637	0.0735	0.7928	2.6000e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		185.8665	185.8665	8.3700e-003		186.0424
Total	0.0637	0.0735	0.7928	2.6000e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		185.8665	185.8665	8.3700e-003		186.0424

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					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	1.1190	21.1352	27.6500	0.0472		0.8460	0.8460		0.8460	0.8460	0.0000	4,572.984 4	4,572.984 4	1.4790		4,604.043 3
Total	1.1190	21.1352	27.6500	0.0472	10.1463	0.8460	10.9922	3.7555	0.8460	4.6015	0.0000	4,572.984 4	4,572.984 4	1.4790		4,604.043 3

3.5 Fine Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0637	0.0735	0.7928	2.6000e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		185.8665	185.8665	8.3700e-003		186.0424
Total	0.0637	0.0735	0.7928	2.6000e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		185.8665	185.8665	8.3700e-003		186.0424

3.6 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880

3.6 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9170	6.8283	10.4794	0.0272	0.7631	0.1107	0.8738	0.2177	0.1019	0.3195		2,545.880 0	2,545.880 0	0.0185		2,546.269 0
Worker	1.1464	1.3223	14.2699	0.0468	3.6966	0.0262	3.7229	0.9805	0.0243	1.0048		3,345.597 3	3,345.597 3	0.1507		3,348.762 7
Total	2.0635	8.1506	24.7493	0.0740	4.4598	0.1369	4.5967	1.1982	0.1262	1.3244		5,891.477 3	5,891.477 3	0.1693		5,895.031 7

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0

3.6 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9170	6.8283	10.4794	0.0272	0.7631	0.1107	0.8738	0.2177	0.1019	0.3195		2,545.880 0	2,545.880 0	0.0185		2,546.269 0
Worker	1.1464	1.3223	14.2699	0.0468	3.6966	0.0262	3.7229	0.9805	0.0243	1.0048		3,345.597 3	3,345.597 3	0.1507		3,348.762 7
Total	2.0635	8.1506	24.7493	0.0740	4.4598	0.1369	4.5967	1.1982	0.1262	1.3244		5,891.477 3	5,891.477 3	0.1693		5,895.031 7

3.6 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.781 7	2,542.781 7	0.6126		2,555.646 2
Total	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.781 7	2,542.781 7	0.6126		2,555.646 2

3.6 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8658	5.6003	10.0228	0.0271	0.7631	0.0997	0.8628	0.2177	0.0917	0.3094		2,541.831 0	2,541.831 0	0.0185		2,542.218 5
Worker	1.0921	1.2418	13.5607	0.0469	3.6966	0.0266	3.7233	0.9805	0.0247	1.0052		3,290.099 7	3,290.099 7	0.1451		3,293.145 6
Total	1.9579	6.8421	23.5835	0.0740	4.4598	0.1263	4.5861	1.1982	0.1164	1.3146		5,831.930 7	5,831.930 7	0.1635		5,835.364 1

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.781 7	2,542.781 7	0.6126		2,555.646 2
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.781 7	2,542.781 7	0.6126		2,555.646 2

3.6 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8658	5.6003	10.0228	0.0271	0.7631	0.0997	0.8628	0.2177	0.0917	0.3094		2,541.831 0	2,541.831 0	0.0185		2,542.218 5
Worker	1.0921	1.2418	13.5607	0.0469	3.6966	0.0266	3.7233	0.9805	0.0247	1.0052		3,290.099 7	3,290.099 7	0.1451		3,293.145 6
Total	1.9579	6.8421	23.5835	0.0740	4.4598	0.1263	4.5861	1.1982	0.1164	1.3146		5,831.930 7	5,831.930 7	0.1635		5,835.364 1

3.6 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.749 7	2,543.749 7	0.6085		2,556.528 6
Total	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.749 7	2,543.749 7	0.6085		2,556.528 6

3.6 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8356	4.9205	9.6659	0.0271	0.7632	0.0981	0.8613	0.2177	0.0902	0.3080		2,539.206 2	2,539.206 2	0.0188		2,539.601 5
Worker	1.0408	1.1733	12.8162	0.0469	3.6966	0.0268	3.7235	0.9805	0.0249	1.0054		3,235.514 7	3,235.514 7	0.1392		3,238.436 9
Total	1.8764	6.0938	22.4820	0.0740	4.4598	0.1249	4.5847	1.1982	0.1151	1.3134		5,774.720 9	5,774.720 9	0.1580		5,778.038 4

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,543.749 7	2,543.749 7	0.6085		2,556.528 6
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,543.749 7	2,543.749 7	0.6085		2,556.528 6

3.6 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8356	4.9205	9.6659	0.0271	0.7632	0.0981	0.8613	0.2177	0.0902	0.3080		2,539.206 2	2,539.206 2	0.0188		2,539.601 5
Worker	1.0408	1.1733	12.8162	0.0469	3.6966	0.0268	3.7235	0.9805	0.0249	1.0054		3,235.514 7	3,235.514 7	0.1392		3,238.436 9
Total	1.8764	6.0938	22.4820	0.0740	4.4598	0.1249	4.5847	1.1982	0.1151	1.3134		5,774.720 9	5,774.720 9	0.1580		5,778.038 4

3.6 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.626 2	2,544.626 2	0.6044		2,557.319 1
Total	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.626 2	2,544.626 2	0.6044		2,557.319 1

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7839	4.2883	9.2741	0.0270	0.7632	0.0957	0.8590	0.2177	0.0881	0.3058		2,533.5428	2,533.5428	0.0177		2,533.9138
Worker	0.9938	1.1130	12.1487	0.0469	3.6966	0.0270	3.7237	0.9805	0.0251	1.0056		3,186.8268	3,186.8268	0.1341		3,189.6422
Total	1.7776	5.4013	21.4227	0.0739	4.4599	0.1228	4.5826	1.1982	0.1131	1.3114		5,720.3696	5,720.3696	0.1517		5,723.5559

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,544.6262	2,544.6262	0.6044		2,557.3191

3.6 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7839	4.2883	9.2741	0.0270	0.7632	0.0957	0.8590	0.2177	0.0881	0.3058		2,533.5428	2,533.5428	0.0177		2,533.9138
Worker	0.9938	1.1130	12.1487	0.0469	3.6966	0.0270	3.7237	0.9805	0.0251	1.0056		3,186.8268	3,186.8268	0.1341		3,189.6422
Total	1.7776	5.4013	21.4227	0.0739	4.4599	0.1228	4.5826	1.1982	0.1131	1.3114		5,720.3696	5,720.3696	0.1517		5,723.5559

3.6 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349
Total	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.1154	2,545.1154	0.6009		2,557.7349

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7432	4.2297	8.8378	0.0270	0.7632	0.0961	0.8593	0.2177	0.0884	0.3061		2,533.3806	2,533.3806	0.0177		2,533.7527
Worker	0.9505	1.0602	11.5859	0.0469	3.6966	0.0272	3.7239	0.9805	0.0253	1.0058		3,143.5699	3,143.5699	0.1296		3,146.2917
Total	1.6937	5.2898	20.4237	0.0739	4.4599	0.1233	4.5832	1.1982	0.1137	1.3119		5,676.9505	5,676.9505	0.1473		5,680.0444

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.1154	2,545.1154	0.6009		2,557.7349

3.6 Building Construction - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7432	4.2297	8.8378	0.0270	0.7632	0.0961	0.8593	0.2177	0.0884	0.3061		2,533.3806	2,533.3806	0.0177		2,533.7527
Worker	0.9505	1.0602	11.5859	0.0469	3.6966	0.0272	3.7239	0.9805	0.0253	1.0058		3,143.5699	3,143.5699	0.1296		3,146.2917
Total	1.6937	5.2898	20.4237	0.0739	4.4599	0.1233	4.5832	1.1982	0.1137	1.3119		5,676.9505	5,676.9505	0.1473		5,680.0444

3.6 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386
Total	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.8905	2,545.8905	0.5975		2,558.4386

3.6 Building Construction - 2025**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	0.7250	4.1864	8.6282	0.0270	0.7633	0.0964	0.8597	0.2177	0.0887	0.3064		2,533.595 1	2,533.595 1	0.0178		2,533.968 3
Worker	0.9139	1.0164	11.1195	0.0469	3.6966	0.0275	3.7241	0.9805	0.0255	1.0060		3,105.960 1	3,105.960 1	0.1259		3,108.604 6
Total	1.6389	5.2028	19.7477	0.0739	4.4599	0.1239	4.5838	1.1983	0.1142	1.3125		5,639.555 2	5,639.555 2	0.1437		5,642.572 9

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	0.3265	2.2289	17.4110	0.0269		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	0.3265	2.2289	17.4110	0.0269		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.6 Building Construction - 2025

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	0.7250	4.1864	8.6282	0.0270	0.7633	0.0964	0.8597	0.2177	0.0887	0.3064		2,533.595 1	2,533.595 1	0.0178		2,533.968 3
Worker	0.9139	1.0164	11.1195	0.0469	3.6966	0.0275	3.7241	0.9805	0.0255	1.0060		3,105.960 1	3,105.960 1	0.1259		3,108.604 6
Total	1.6389	5.2028	19.7477	0.0739	4.4599	0.1239	4.5838	1.1983	0.1142	1.3125		5,639.555 2	5,639.555 2	0.1437		5,642.572 9

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0775	11.0823	11.5655	0.0178		0.6077	0.6077		0.5591	0.5591		1,722.995 5	1,722.995 5	0.5573		1,734.697 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0775	11.0823	11.5655	0.0178		0.6077	0.6077		0.5591	0.5591		1,722.995 5	1,722.995 5	0.5573		1,734.697 8

3.7 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0331	0.0382	0.4122	1.3500e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		96.6506	96.6506	4.3500e-003		96.7420
Total	0.0331	0.0382	0.4122	1.3500e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		96.6506	96.6506	4.3500e-003		96.7420

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	0.4379	8.9163	13.5016	0.0178		0.4945	0.4945		0.4945	0.4945	0.0000	1,722.9955	1,722.9955	0.5573		1,734.6978
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4379	8.9163	13.5016	0.0178		0.4945	0.4945		0.4945	0.4945	0.0000	1,722.9955	1,722.9955	0.5573		1,734.6978

3.7 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0331	0.0382	0.4122	1.3500e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		96.6506	96.6506	4.3500e-003		96.7420
Total	0.0331	0.0382	0.4122	1.3500e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		96.6506	96.6506	4.3500e-003		96.7420

3.8 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	20.5809	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057

3.8 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2293	0.2645	2.8540	9.3600e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		669.1195	669.1195	0.0302		669.7525
Total	0.2293	0.2645	2.8540	9.3600e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		669.1195	669.1195	0.0302		669.7525

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057

3.8 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2293	0.2645	2.8540	9.3600e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		669.1195	669.1195	0.0302		669.7525
Total	0.2293	0.2645	2.8540	9.3600e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		669.1195	669.1195	0.0302		669.7525

3.8 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	20.5577	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537

3.8 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2184	0.2484	2.7121	9.3800e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		658.0199	658.0199	0.0290		658.6291
Total	0.2184	0.2484	2.7121	9.3800e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		658.0199	658.0199	0.0290		658.6291

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.8537
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.8537

3.8 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2184	0.2484	2.7121	9.3800e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		658.0199	658.0199	0.0290		658.6291
Total	0.2184	0.2484	2.7121	9.3800e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		658.0199	658.0199	0.0290		658.6291

3.8 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329
Total	20.5433	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329

3.8 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.2082	0.2347	2.5632	9.3800e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		647.1030	647.1030	0.0278		647.6874
Total	0.2082	0.2347	2.5632	9.3800e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		647.1030	647.1030	0.0278		647.6874

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.8329
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.8329

3.8 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.2082	0.2347	2.5632	9.3800e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		647.1030	647.1030	0.0278		647.6874
Total	0.2082	0.2347	2.5632	9.3800e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		647.1030	647.1030	0.0278		647.6874

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8017
Total	20.5304	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8017

3.8 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.1988	0.2226	2.4297	9.3800e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		637.3654	637.3654	0.0268		637.9284
Total	0.1988	0.2226	2.4297	9.3800e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		637.3654	637.3654	0.0268		637.9284

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8017
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8017

3.8 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.1988	0.2226	2.4297	9.3800e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		637.3654	637.3654	0.0268		637.9284
Total	0.1988	0.2226	2.4297	9.3800e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		637.3654	637.3654	0.0268		637.9284

3.8 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.7809
Total	20.5195	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.7809

3.8 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.1901	0.2120	2.3172	9.3800e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		628.7140	628.7140	0.0259		629.2583
Total	0.1901	0.2120	2.3172	9.3800e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		628.7140	628.7140	0.0259		629.2583

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.7809
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.7809

3.8 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.1901	0.2120	2.3172	9.3800e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		628.7140	628.7140	0.0259		629.2583
Total	0.1901	0.2120	2.3172	9.3800e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		628.7140	628.7140	0.0259		629.2583

3.8 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	20.5096	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705

3.8 Architectural Coating - 2025

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	0.1828	0.2033	2.2239	9.3800e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		621.1920	621.1920	0.0252		621.7209
Total	0.1828	0.2033	2.2239	9.3800e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		621.1920	621.1920	0.0252		621.7209

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.7705
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.7705

3.8 Architectural Coating - 2025

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	0.1828	0.2033	2.2239	9.3800e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		621.1920	621.1920	0.0252		621.7209
Total	0.1828	0.2033	2.2239	9.3800e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		621.1920	621.1920	0.0252		621.7209

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	20.7012	41.5519	224.1220	0.8648	58.5643	0.8993	59.4636	15.6321	0.8303	16.4624		62,489.69 41	62,489.69 41	2.0001		62,531.69 52
Unmitigated	20.7012	41.5519	224.1220	0.8648	58.5643	0.8993	59.4636	15.6321	0.8303	16.4624		62,489.69 41	62,489.69 41	2.0001		62,531.69 52

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	211.50	211.50	211.50	521,602	521,602
Condo/Townhouse	1,968.00	1,968.00	1,968.00	7,282,900	7,282,900
Single Family Housing	5,340.00	5,340.00	5,340.00	19,761,528	19,761,528
User Defined Commercial	50.00	50.00	50.00	113,203	113,203
Total	7,569.50	7,569.50	7,569.50	27,679,233	27,679,233

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6
Condo/Townhouse	16.80	7.10	7.90	41.60	18.80	39.60	86	11	3
Single Family Housing	16.80	7.10	7.90	41.60	18.80	39.60	86	11	3
User Defined Commercial	14.70	6.60	6.60	5.00	90.00	5.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511923	0.073395	0.191568	0.130918	0.036235	0.005199	0.012665	0.023708	0.001889	0.002027	0.006511	0.000534	0.003431

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697
NaturalGas Unmitigated	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	9294.79	0.1002	0.8566	0.3645	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.5047	1,093.5047	0.0210	0.0201	1,100.1596
Single Family Housing	40457.4	0.4363	3.7284	1.5866	0.0238		0.3015	0.3015		0.3015	0.3015		4,759.6982	4,759.6982	0.0912	0.0873	4,788.6649
User Defined Commercial	400	4.3100e-003	0.0392	0.0329	2.4000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003		47.0588	47.0588	9.0000e-004	8.6000e-004	47.3452
Total		0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	9.29479	0.1002	0.8566	0.3645	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.5047	1,093.5047	0.0210	0.0201	1,100.1596
Single Family Housing	40.4574	0.4363	3.7284	1.5866	0.0238		0.3015	0.3015		0.3015	0.3015		4,759.6982	4,759.6982	0.0912	0.0873	4,788.6649
User Defined Commercial	0.4	4.3100e-003	0.0392	0.0329	2.4000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003		47.0588	47.0588	9.0000e-004	8.6000e-004	47.3452
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	40.2329	0.7406	64.3649	3.4000e-003		1.2982	1.2982		1.2883	1.2883	0.0000	14,981.7543	14,981.7543	0.3959	0.2725	15,074.5558
Unmitigated	1,232.5782	16.9360	1,534.8107	0.5778		206.9559	206.9559		206.9498	206.9498	21,661.9500	9,200.5778	30,862.5278	20.1014	1.7039	31,812.8576

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	6.9486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	29.9912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,193.7081	16.1954	1,470.5201	0.5744		206.5992	206.5992		206.5931	206.5931	21,661.9500	9,084.7059	30,746.6559	19.9904	1.7039	31,694.6555
Landscaping	1.9303	0.7406	64.2906	3.4000e-003		0.3567	0.3567		0.3567	0.3567		115.8719	115.8719	0.1110		118.2022
Total	1,232.5782	16.9360	1,534.8107	0.5778		206.9559	206.9559		206.9498	206.9498	21,661.9500	9,200.5778	30,862.5278	20.1013	1.7039	31,812.8576

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	6.9486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	29.9912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.3627	6.0000e-005	0.0743	0.0000		0.9415	0.9415		0.9316	0.9316	0.0000	14,865.8824	14,865.8824	0.2849	0.2725	14,956.3536
Landscaping	1.9303	0.7406	64.2906	3.4000e-003		0.3567	0.3567		0.3567	0.3567		115.8719	115.8719	0.1110		118.2022
Total	40.2329	0.7406	64.3649	3.4000e-003		1.2982	1.2982		1.2883	1.2883	0.0000	14,981.7543	14,981.7543	0.3959	0.2725	15,074.5558

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Warner Ranch Residential Development (2025 Mitigated)
San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	1.00	10,000.00	10
City Park	4.23	Acre	4.23	184,258.80	0
Condo/Townhouse	246.00	Dwelling Unit	11.77	246,000.00	704
Single Family Housing	534.00	Dwelling Unit	159.00	961,200.00	1527

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per Project Specifications

Land Use - Per project description

Construction Phase - Estimates per project description

Off-road Equipment -

Off-road Equipment - Estimates per project description

Off-road Equipment - Estimates per project description

Off-road Equipment - Off-Highway Trucks represent Water Trucks as required per project description.

Off-road Equipment - Per project description

Off-road Equipment - Off-Highway trucks represent Water Trucks needed per project description.

Off-road Equipment - Estimates per Project requirements

Off-road Equipment - Estimates per project description.

Trips and VMT - Estimates per project description

Demolition -

Architectural Coating - Estimates per project description

Vehicle Trips - Updated per traffic study

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - 150 g/l emission factor is typical for all coatings in San Diego

Energy Use - User defined subtype represents project's proposed Fire Station.

Water And Wastewater - User Defined water usage refers to project's Fire House. City park water use was derived using California Department of Water Resources 2009 model per equation in report (4,406,008 GPY)

Solid Waste - User Defined Commercial is for the Firehouse. It's estimated that 2.91 residents per multi-family unit and since 10 firefighters are assumed to live in the firehouse, $10/2.91=3.43x$ the waste of multi-family is 0.46 tons/year.

Construction Off-road Equipment Mitigation - Proposed mitigation

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 13% additional beyond the 20% already assumed by the County.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150

tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	220.00	1,247.00
tblConstructionPhase	NumDays	3,100.00	1,305.00
tblConstructionPhase	NumDays	200.00	11.00
tblConstructionPhase	NumDays	310.00	554.00
tblConstructionPhase	NumDays	310.00	45.00
tblConstructionPhase	NumDays	220.00	47.00
tblConstructionPhase	PhaseEndDate	1/16/2025	1/31/2025
tblConstructionPhase	PhaseEndDate	1/30/2025	1/31/2025
tblConstructionPhase	PhaseEndDate	4/8/2025	4/7/2020
tblConstructionPhase	PhaseStartDate	4/8/2020	4/23/2020
tblConstructionPhase	PhaseStartDate	1/31/2020	2/3/2020
tblConstructionPhase	PhaseStartDate	2/1/2025	2/3/2020
tblEnergyUse	LightingElect	0.00	0.43
tblEnergyUse	NT24E	0.00	38.50
tblEnergyUse	NT24NG	0.00	14.60
tblGrading	AcresOfGrading	2,423.75	175.00
tblGrading	AcresOfGrading	33.75	175.00
tblLandUse	LandUseSquareFeet	0.00	10,000.00
tblLandUse	LotAcreage	0.00	1.00

tblLandUse	LotAcreage	15.38	11.77
tblLandUse	LotAcreage	173.38	159.00
tblLandUse	Population	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2025
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	1.58
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	VendorTripLength	6.60	7.30
tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80

tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripLength	16.80	10.80
tblTripsAndVMT	WorkerTripNumber	48.00	53.00
tblTripsAndVMT	WorkerTripNumber	15.00	25.00
tblVehicleTrips	CC_TTP	0.00	90.00
tblVehicleTrips	CNW_TTP	0.00	5.00
tblVehicleTrips	CW_TTP	0.00	5.00
tblVehicleTrips	DV_TP	0.00	11.00
tblVehicleTrips	PB_TP	0.00	3.00
tblVehicleTrips	PR_TP	0.00	86.00
tblVehicleTrips	ST_TR	1.59	50.00
tblVehicleTrips	ST_TR	7.16	8.00
tblVehicleTrips	ST_TR	10.08	10.00
tblVehicleTrips	ST_TR	0.00	50.00
tblVehicleTrips	SU_TR	1.59	50.00
tblVehicleTrips	SU_TR	6.07	8.00
tblVehicleTrips	SU_TR	8.77	10.00
tblVehicleTrips	SU_TR	0.00	50.00
tblVehicleTrips	WD_TR	1.59	50.00
tblVehicleTrips	WD_TR	6.59	8.00
tblVehicleTrips	WD_TR	9.57	10.00
tblVehicleTrips	WD_TR	0.00	50.00
tblWater	IndoorWaterUseRate	0.00	223,478.30
tblWater	OutdoorWaterUseRate	5,039,966.11	4,406,008.00
tblWater	OutdoorWaterUseRate	0.00	140,888.50

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					
2017	14.4664	164.7228	107.3945	0.1532	27.1170	7.3645	34.4815	14.6339	6.7754	21.4093	0.0000	15,555.8172	15,555.8172	4.6603	0.0000	15,653.6830
2018	12.7744	142.6583	96.0560	0.1532	27.1170	6.2963	33.4133	14.6339	5.7926	20.4265	0.0000	15,295.8427	15,295.8427	4.6571	0.0000	15,393.6424
2019	11.9325	130.5943	90.9258	0.1531	27.1170	5.7272	32.8442	14.6339	5.2691	19.9030	0.0000	15,036.6457	15,036.6457	4.6541	0.0000	15,134.3824
2020	25.1848	38.6709	56.8467	0.1169	10.3516	1.8593	11.9764	3.8100	1.7334	5.3048	0.0000	10,023.6960	10,023.6960	1.4874	0.0000	10,054.9308
2021	24.8101	26.2608	47.7511	0.1096	5.1991	1.1815	6.3806	1.3943	1.1141	2.5084	0.0000	9,052.9362	9,052.9362	0.8250	0.0000	9,070.2617
2022	24.4968	23.5501	46.1094	0.1096	5.1991	1.0186	6.2177	1.3943	0.9607	2.3551	0.0000	8,989.5227	8,989.5227	0.8133	0.0000	9,006.6018
2023	24.2326	21.4848	44.6588	0.1095	5.1992	0.8965	6.0957	1.3944	0.8454	2.2397	0.0000	8,929.6129	8,929.6129	0.8004	0.0000	8,946.4222
2024	24.0129	20.3316	43.2070	0.1095	5.1992	0.8010	6.0002	1.3944	0.7547	2.1491	0.0000	8,880.9471	8,880.9471	0.7907	0.0000	8,897.5511
2025	23.8292	19.1857	42.2502	0.1095	5.1992	0.7067	5.9059	1.3944	0.6654	2.0598	0.0000	8,839.3500	8,839.3500	0.7824	0.0000	8,855.7804
Total	185.7397	587.4594	575.1993	1.1239	117.6985	25.8516	143.3156	54.6834	23.9108	78.3557	0.0000	100,604.3706	100,604.3706	19.4707	0.0000	101,013.2558

2.1 Overall Construction (Maximum Daily Emission)

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					
2017	2.0761	50.8916	80.8311	0.1532	27.1170	1.9123	29.0293	14.6339	2.0037	16.6376	0.0000	15,555.8172	15,555.8172	4.6603	0.0000	15,653.6830
2018	2.3590	55.0000	83.3519	0.1532	27.1170	2.0954	29.2124	14.6339	2.1722	16.8061	0.0000	15,295.8427	15,295.8427	4.6571	0.0000	15,393.6424
2019	2.4879	57.1841	84.4483	0.1531	27.1170	2.1871	29.3041	14.6339	2.2566	16.8905	0.0000	15,036.6457	15,036.6457	4.6541	0.0000	15,134.3824
2020	23.2173	21.2176	59.3854	0.1169	10.3516	0.8474	11.1990	3.8100	0.8473	4.6573	0.0000	10,023.6960	10,023.6960	1.4874	0.0000	10,054.9308
2021	23.0840	10.9796	48.6393	0.1096	5.1991	0.2682	5.4673	1.3943	0.2579	1.6522	0.0000	9,052.9362	9,052.9362	0.8250	0.0000	9,070.2617
2022	22.9790	10.1911	47.2116	0.1096	5.1991	0.2668	5.4660	1.3943	0.2566	1.6509	0.0000	8,989.5227	8,989.5227	0.8133	0.0000	9,006.6018
2023	22.8607	9.4551	45.8818	0.1095	5.1992	0.2647	5.4638	1.3944	0.2546	1.6489	0.0000	8,929.6129	8,929.6129	0.8004	0.0000	8,946.4222
2024	22.7528	9.3213	44.5071	0.1095	5.1992	0.2653	5.4645	1.3944	0.2552	1.6495	0.0000	8,880.9471	8,880.9471	0.7907	0.0000	8,897.5511
2025	22.6827	9.2164	43.6328	0.1095	5.1992	0.2659	5.4651	1.3944	0.2557	1.6501	0.0000	8,839.3500	8,839.3500	0.7824	0.0000	8,855.7804
Total	144.4996	233.4567	537.8892	1.1239	117.6985	8.3730	126.0715	54.6834	8.5597	63.2431	0.0000	100,604.3705	100,604.3705	19.4707	0.0000	101,013.2557

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	22.20	60.26	6.49	0.00	0.00	67.61	12.03	0.00	64.20	19.29	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1,232.578 2	16.9360	1,534.810 7	0.5778		206.9559	206.9559		206.9498	206.9498	21,661.95 00	9,200.577 8	30,862.52 78	20.1014	1.7039	31,812.85 76
Energy	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.261 7	5,900.261 7	0.1131	0.1082	5,936.169 7
Mobile	21.6746	44.2955	228.7262	0.8213	58.5643	0.9014	59.4657	15.6321	0.8323	16.4644		59,540.26 43	59,540.26 43	2.0020		59,582.30 53
Total	1,254.793 7	65.8557	1,765.520 9	1.4286	58.5643	208.2310	266.7952	15.6321	208.1558	223.7879	21,661.95 00	74,641.10 39	96,303.05 38	22.2164	1.8121	97,331.33 26

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	40.2329	0.7406	64.3649	3.4000e- 003		1.2982	1.2982		1.2883	1.2883	0.0000	14,981.75 43	14,981.75 43	0.3959	0.2725	15,074.55 58
Energy	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.261 7	5,900.261 7	0.1131	0.1082	5,936.169 7
Mobile	21.6746	44.2955	228.7262	0.8213	58.5643	0.9014	59.4657	15.6321	0.8323	16.4644		59,540.26 43	59,540.26 43	2.0020		59,582.30 53
Total	62.4484	49.6603	295.0751	0.8542	58.5643	2.5733	61.1376	15.6321	2.4943	18.1264	0.0000	80,422.28 03	80,422.28 03	2.5109	0.3807	80,593.03 08

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	95.02	24.59	83.29	40.21	0.00	98.76	77.08	0.00	98.80	91.90	100.00	-7.75	16.49	88.70	78.99	17.20

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	8/1/2017	8/15/2017	5	11	
2	Mass Grading	Grading	8/16/2017	9/30/2019	5	554	
3	Trenching	Trenching	10/1/2019	11/28/2019	5	43	
4	Fine Grading	Grading	11/29/2019	1/30/2020	5	45	
5	Building Construction	Building Construction	2/3/2020	1/31/2025	5	1305	
6	Paving	Paving	2/3/2020	4/7/2020	5	47	
7	Architectural Coating	Architectural Coating	4/23/2020	1/31/2025	5	1247	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,444,580; Residential Outdoor: 814,860; Non-Residential Indoor: 291,388; Non-Residential Outdoor: 97,129 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Mass Grading	Bore/Drill Rigs	2	7.00	205	0.50
Mass Grading	Graders	2	7.00	174	0.41
Mass Grading	Off-Highway Trucks	2	7.00	400	0.38
Mass Grading	Rubber Tired Dozers	5	7.00	255	0.40
Mass Grading	Scrapers	4	7.00	361	0.48
Mass Grading	Tractors/Loaders/Backhoes	4	5.00	97	0.37
Trenching	Excavators	2	8.00	162	0.38
Trenching	Other General Industrial Equipment	1	8.00	87	0.34
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fine Grading	Graders	2	6.00	174	0.41
Fine Grading	Off-Highway Trucks	2	8.00	400	0.38
Fine Grading	Rubber Tired Dozers	1	8.00	255	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass Grading	19	53.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	450.00	115.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2017

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					0.0815	0.0000	0.0815	0.0124	0.0000	0.0124			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.467 4	4,036.467 4	1.1073		4,059.721 1
Total	4.0482	42.6971	33.8934	0.0399	0.0815	2.1252	2.2067	0.0124	1.9797	1.9921		4,036.467 4	4,036.467 4	1.1073		4,059.721 1

3.2 Demolition - 2017**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	7.4100e-003	0.0938	0.0902	2.7000e-004	6.3400e-003	1.2300e-003	7.5600e-003	1.7400e-003	1.1300e-003	2.8600e-003		26.8764	26.8764	1.9000e-004		26.8804
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	0.0504	0.0628	0.5868	1.4700e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		117.6222	117.6222	6.0400e-003		117.7491
Total	0.0578	0.1565	0.6769	1.7400e-003	0.1296	2.1300e-003	0.1317	0.0344	1.9600e-003	0.0364		144.4987	144.4987	6.2300e-003		144.6295

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					0.0815	0.0000	0.0815	0.0124	0.0000	0.0124			0.0000			0.0000
Off-Road	0.3911	15.1663	26.6957	0.0399		0.6992	0.6992		0.7371	0.7371	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	0.3911	15.1663	26.6957	0.0399	0.0815	0.6992	0.7807	0.0124	0.7371	0.7495	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211

3.2 Demolition - 2017**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	7.4100e-003	0.0938	0.0902	2.7000e-004	6.3400e-003	1.2300e-003	7.5600e-003	1.7400e-003	1.1300e-003	2.8600e-003		26.8764	26.8764	1.9000e-004		26.8804
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	0.0504	0.0628	0.5868	1.4700e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		117.6222	117.6222	6.0400e-003		117.7491
Total	0.0578	0.1565	0.6769	1.7400e-003	0.1296	2.1300e-003	0.1317	0.0344	1.9600e-003	0.0364		144.4987	144.4987	6.2300e-003		144.6295

3.3 Mass Grading - 2017**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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	14.2884	164.5011	105.3213	0.1480		7.3614	7.3614		6.7725	6.7725		15,140.2187	15,140.2187	4.6389		15,237.6363
Total	14.2884	164.5011	105.3213	0.1480	26.6816	7.3614	34.0430	14.5184	6.7725	21.2909		15,140.2187	15,140.2187	4.6389		15,237.6363

3.3 Mass Grading - 2017

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	0.1779	0.2217	2.0732	5.1800e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		415.5985	415.5985	0.0213		416.0466
Total	0.1779	0.2217	2.0732	5.1800e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		415.5985	415.5985	0.0213		416.0466

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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	1.8982	50.6699	78.7579	0.1480		1.9091	1.9091		2.0008	2.0008	0.0000	15,140.2187	15,140.2187	4.6389		15,237.6363
Total	1.8982	50.6699	78.7579	0.1480	26.6816	1.9091	28.5907	14.5184	2.0008	16.5192	0.0000	15,140.2187	15,140.2187	4.6389		15,237.6363

3.3 Mass Grading - 2017

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	0.1779	0.2217	2.0732	5.1800e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		415.5985	415.5985	0.0213		416.0466
Total	0.1779	0.2217	2.0732	5.1800e-003	0.4354	3.1700e-003	0.4386	0.1155	2.9200e-003	0.1184		415.5985	415.5985	0.0213		416.0466

3.3 Mass Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	12.6127	142.4560	94.1836	0.1480		6.2932	6.2932		5.7897	5.7897		14,895.8539	14,895.8539	4.6373		14,993.2368
Total	12.6127	142.4560	94.1836	0.1480	26.6816	6.2932	32.9748	14.5184	5.7897	20.3082		14,895.8539	14,895.8539	4.6373		14,993.2368

3.3 Mass Grading - 2018

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	0.1617	0.2023	1.8723	5.1800e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		399.9888	399.9888	0.0199		400.4056
Total	0.1617	0.2023	1.8723	5.1800e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		399.9888	399.9888	0.0199		400.4056

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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	2.1973	54.7977	81.4795	0.1480		2.0923	2.0923		2.1693	2.1693	0.0000	14,895.8539	14,895.8539	4.6373		14,993.2368
Total	2.1973	54.7977	81.4795	0.1480	26.6816	2.0923	28.7739	14.5184	2.1693	16.6877	0.0000	14,895.8539	14,895.8539	4.6373		14,993.2368

3.3 Mass Grading - 2018

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	0.1617	0.2023	1.8723	5.1800e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		399.9888	399.9888	0.0199		400.4056
Total	0.1617	0.2023	1.8723	5.1800e-003	0.4354	3.1100e-003	0.4385	0.1155	2.8700e-003	0.1184		399.9888	399.9888	0.0199		400.4056

3.3 Mass 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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	11.7825	130.4074	89.2055	0.1479		5.7242	5.7242		5.2662	5.2662		14,651.1300	14,651.1300	4.6355		14,748.4747
Total	11.7825	130.4074	89.2055	0.1479	26.6816	5.7242	32.4058	14.5184	5.2662	19.7846		14,651.1300	14,651.1300	4.6355		14,748.4747

3.3 Mass 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	0.1501	0.1869	1.7203	5.1800e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		385.5157	385.5157	0.0187		385.9077
Total	0.1501	0.1869	1.7203	5.1800e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		385.5157	385.5157	0.0187		385.9077

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					26.6816	0.0000	26.6816	14.5184	0.0000	14.5184			0.0000			0.0000
Off-Road	2.3379	56.9971	82.7281	0.1479		2.1840	2.1840		2.2537	2.2537	0.0000	14,651.1300	14,651.1300	4.6355		14,748.4747
Total	2.3379	56.9971	82.7281	0.1479	26.6816	2.1840	28.8657	14.5184	2.2537	16.7721	0.0000	14,651.1300	14,651.1300	4.6355		14,748.4747

3.3 Mass 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	0.1501	0.1869	1.7203	5.1800e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		385.5157	385.5157	0.0187		385.9077
Total	0.1501	0.1869	1.7203	5.1800e-003	0.4354	3.0800e-003	0.4385	0.1155	2.8600e-003	0.1183		385.5157	385.5157	0.0187		385.9077

3.4 Trenching - 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	1.0281	10.1829	10.9879	0.0162		0.6001	0.6001		0.5521	0.5521		1,606.3215	1,606.3215	0.5082		1,616.9941
Total	1.0281	10.1829	10.9879	0.0162		0.6001	0.6001		0.5521	0.5521		1,606.3215	1,606.3215	0.5082		1,616.9941

3.4 Trenching - 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	0.0283	0.0353	0.3246	9.8000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		72.7388	72.7388	3.5200e-003		72.8128
Total	0.0283	0.0353	0.3246	9.8000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		72.7388	72.7388	3.5200e-003		72.8128

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1419	6.2625	13.3810	0.0162		0.3308	0.3308		0.3478	0.3478	0.0000	1,606.3214	1,606.3214	0.5082		1,616.9941
Total	0.1419	6.2625	13.3810	0.0162		0.3308	0.3308		0.3478	0.3478	0.0000	1,606.3214	1,606.3214	0.5082		1,616.9941

3.4 Trenching - 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	0.0283	0.0353	0.3246	9.8000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		72.7388	72.7388	3.5200e-003		72.8128
Total	0.0283	0.0353	0.3246	9.8000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		72.7388	72.7388	3.5200e-003		72.8128

3.5 Fine 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					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	3.7947	38.7541	25.4011	0.0472		1.8007	1.8007		1.6566	1.6566		4,676.7203	4,676.7203	1.4797		4,707.7933
Total	3.7947	38.7541	25.4011	0.0472	10.1463	1.8007	11.9469	3.7555	1.6566	5.4122		4,676.7203	4,676.7203	1.4797		4,707.7933

3.5 Fine 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	0.0708	0.0882	0.8115	2.4400e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		181.8470	181.8470	8.8100e-003		182.0320
Total	0.0708	0.0882	0.8115	2.4400e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		181.8470	181.8470	8.8100e-003		182.0320

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					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	1.1190	21.1352	27.6500	0.0472		0.8460	0.8460		0.8460	0.8460	0.0000	4,676.7203	4,676.7203	1.4797		4,707.7933
Total	1.1190	21.1352	27.6500	0.0472	10.1463	0.8460	10.9922	3.7555	0.8460	4.6015	0.0000	4,676.7203	4,676.7203	1.4797		4,707.7933

3.5 Fine 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	0.0708	0.0882	0.8115	2.4400e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		181.8470	181.8470	8.8100e-003		182.0320
Total	0.0708	0.0882	0.8115	2.4400e-003	0.2054	1.4500e-003	0.2068	0.0545	1.3500e-003	0.0558		181.8470	181.8470	8.8100e-003		182.0320

3.5 Fine Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	3.5348	35.0102	24.3470	0.0472		1.6233	1.6233		1.4935	1.4935		4,572.984 4	4,572.984 4	1.4790		4,604.043 3
Total	3.5348	35.0102	24.3470	0.0472	10.1463	1.6233	11.7696	3.7555	1.4935	5.2490		4,572.984 4	4,572.984 4	1.4790		4,604.043 3

3.5 Fine Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0824	0.7579	2.4400e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		174.5180	174.5180	8.3700e-003		174.6938
Total	0.0669	0.0824	0.7579	2.4400e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		174.5180	174.5180	8.3700e-003		174.6938

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					10.1463	0.0000	10.1463	3.7555	0.0000	3.7555			0.0000			0.0000
Off-Road	1.1190	21.1352	27.6500	0.0472		0.8460	0.8460		0.8460	0.8460	0.0000	4,572.984 4	4,572.984 4	1.4790		4,604.043 3
Total	1.1190	21.1352	27.6500	0.0472	10.1463	0.8460	10.9922	3.7555	0.8460	4.6015	0.0000	4,572.984 4	4,572.984 4	1.4790		4,604.043 3

3.5 Fine Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0824	0.7579	2.4400e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		174.5180	174.5180	8.3700e-003		174.6938
Total	0.0669	0.0824	0.7579	2.4400e-003	0.2054	1.4600e-003	0.2068	0.0545	1.3500e-003	0.0558		174.5180	174.5180	8.3700e-003		174.6938

3.6 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880

3.6 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0468	6.9791	14.4359	0.0270	0.7631	0.1118	0.8749	0.2177	0.1028	0.3205		2,526.148 0	2,526.148 0	0.0191		2,526.549 4
Worker	1.2048	1.4828	13.6427	0.0439	3.6966	0.0262	3.7229	0.9805	0.0243	1.0048		3,141.323 3	3,141.323 3	0.1507		3,144.488 7
Total	2.2517	8.4619	28.0786	0.0710	4.4598	0.1380	4.5977	1.1982	0.1271	1.3253		5,667.471 3	5,667.471 3	0.1698		5,671.038 0

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0

3.6 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0468	6.9791	14.4359	0.0270	0.7631	0.1118	0.8749	0.2177	0.1028	0.3205		2,526.148 0	2,526.148 0	0.0191		2,526.549 4
Worker	1.2048	1.4828	13.6427	0.0439	3.6966	0.0262	3.7229	0.9805	0.0243	1.0048		3,141.323 3	3,141.323 3	0.1507		3,144.488 7
Total	2.2517	8.4619	28.0786	0.0710	4.4598	0.1380	4.5977	1.1982	0.1271	1.3253		5,667.471 3	5,667.471 3	0.1698		5,671.038 0

3.6 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.781 7	2,542.781 7	0.6126		2,555.646 2
Total	1.8931	17.3403	16.5376	0.0268		0.9549	0.9549		0.8979	0.8979		2,542.781 7	2,542.781 7	0.6126		2,555.646 2

3.6 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9832	5.7235	13.8869	0.0270	0.7631	0.1006	0.8637	0.2177	0.0925	0.3102		2,522.0970	2,522.0970	0.0191		2,522.4973
Worker	1.1468	1.3919	12.9242	0.0440	3.6966	0.0266	3.7233	0.9805	0.0247	1.0052		3,088.8412	3,088.8412	0.1451		3,091.8871
Total	2.1300	7.1153	26.8110	0.0710	4.4598	0.1272	4.5870	1.1982	0.1172	1.3155		5,610.9382	5,610.9382	0.1641		5,614.3845

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,542.7817	2,542.7817	0.6126		2,555.6462

3.6 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9832	5.7235	13.8869	0.0270	0.7631	0.1006	0.8637	0.2177	0.0925	0.3102		2,522.0970	2,522.0970	0.0191		2,522.4973
Worker	1.1468	1.3919	12.9242	0.0440	3.6966	0.0266	3.7233	0.9805	0.0247	1.0052		3,088.8412	3,088.8412	0.1451		3,091.8871
Total	2.1300	7.1153	26.8110	0.0710	4.4598	0.1272	4.5870	1.1982	0.1172	1.3155		5,610.9382	5,610.9382	0.1641		5,614.3845

3.6 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286
Total	1.6992	15.5364	16.3276	0.0268		0.8057	0.8057		0.7581	0.7581		2,543.7497	2,543.7497	0.6085		2,556.5286

3.6 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9429	5.0277	13.3397	0.0270	0.7632	0.0990	0.8621	0.2177	0.0910	0.3087		2,519.4853	2,519.4853	0.0195		2,519.8940
Worker	1.0929	1.3146	12.1904	0.0440	3.6966	0.0268	3.7235	0.9805	0.0249	1.0054		3,037.3665	3,037.3665	0.1392		3,040.2886
Total	2.0358	6.3423	25.5301	0.0710	4.4598	0.1258	4.5856	1.1982	0.1159	1.3141		5,556.8517	5,556.8517	0.1586		5,560.1826

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,543.7497	2,543.7497	0.6085		2,556.5286

3.6 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9429	5.0277	13.3397	0.0270	0.7632	0.0990	0.8621	0.2177	0.0910	0.3087		2,519.485 3	2,519.485 3	0.0195		2,519.894 0
Worker	1.0929	1.3146	12.1904	0.0440	3.6966	0.0268	3.7235	0.9805	0.0249	1.0054		3,037.366 5	3,037.366 5	0.1392		3,040.288 6
Total	2.0358	6.3423	25.5301	0.0710	4.4598	0.1258	4.5856	1.1982	0.1159	1.3141		5,556.851 7	5,556.851 7	0.1586		5,560.182 6

3.6 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.626 2	2,544.626 2	0.6044		2,557.319 1
Total	1.5661	14.3126	16.2093	0.0268		0.6967	0.6967		0.6557	0.6557		2,544.626 2	2,544.626 2	0.6044		2,557.319 1

3.6 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8839	4.3735	12.7994	0.0269	0.7632	0.0965	0.8598	0.2177	0.0888	0.3065		2,513.813 4	2,513.813 4	0.0183		2,514.197 7
Worker	1.0435	1.2464	11.5325	0.0440	3.6966	0.0270	3.7237	0.9805	0.0251	1.0056		2,991.437 7	2,991.437 7	0.1341		2,994.253 1
Total	1.9273	5.6199	24.3319	0.0709	4.4599	0.1236	4.5834	1.1982	0.1139	1.3121		5,505.251 1	5,505.251 1	0.1524		5,508.450 8

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,544.626 2	2,544.626 2	0.6044		2,557.319 1
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,544.626 2	2,544.626 2	0.6044		2,557.319 1

3.6 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8839	4.3735	12.7994	0.0269	0.7632	0.0965	0.8598	0.2177	0.0888	0.3065		2,513.813 4	2,513.813 4	0.0183		2,514.197 7
Worker	1.0435	1.2464	11.5325	0.0440	3.6966	0.0270	3.7237	0.9805	0.0251	1.0056		2,991.437 7	2,991.437 7	0.1341		2,994.253 1
Total	1.9273	5.6199	24.3319	0.0709	4.4599	0.1236	4.5834	1.1982	0.1139	1.3121		5,505.251 1	5,505.251 1	0.1524		5,508.450 8

3.6 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.115 4	2,545.115 4	0.6009		2,557.734 9
Total	1.4653	13.3774	16.1332	0.0268		0.6106	0.6106		0.5744	0.5744		2,545.115 4	2,545.115 4	0.6009		2,557.734 9

3.6 Building Construction - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8304	4.3114	12.0898	0.0269	0.7632	0.0969	0.8601	0.2177	0.0891	0.3069		2,513.650 2	2,513.650 2	0.0184		2,514.035 6
Worker	0.9981	1.1867	10.9783	0.0440	3.6966	0.0272	3.7239	0.9805	0.0253	1.0058		2,950.611 3	2,950.611 3	0.1296		2,953.333 1
Total	1.8285	5.4981	23.0680	0.0709	4.4599	0.1241	4.5840	1.1982	0.1144	1.3126		5,464.261 4	5,464.261 4	0.1480		5,467.368 7

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	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.115 4	2,545.115 4	0.6009		2,557.734 9
Total	0.3265	2.2289	17.4110	0.0268		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.115 4	2,545.115 4	0.6009		2,557.734 9

3.6 Building Construction - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8304	4.3114	12.0898	0.0269	0.7632	0.0969	0.8601	0.2177	0.0891	0.3069		2,513.650 2	2,513.650 2	0.0184		2,514.035 6
Worker	0.9981	1.1867	10.9783	0.0440	3.6966	0.0272	3.7239	0.9805	0.0253	1.0058		2,950.611 3	2,950.611 3	0.1296		2,953.333 1
Total	1.8285	5.4981	23.0680	0.0709	4.4599	0.1241	4.5840	1.1982	0.1144	1.3126		5,464.261 4	5,464.261 4	0.1480		5,467.368 7

3.6 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	1.3615	12.4097	16.0518	0.0269		0.5250	0.5250		0.4939	0.4939		2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.6 Building Construction - 2025**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	0.8065	4.2658	11.7657	0.0269	0.7633	0.0972	0.8605	0.2177	0.0894	0.3072		2,513.863 9	2,513.863 9	0.0184		2,514.250 4
Worker	0.9596	1.1373	10.5197	0.0440	3.6966	0.0275	3.7241	0.9805	0.0255	1.0060		2,915.123 0	2,915.123 0	0.1259		2,917.767 5
Total	1.7662	5.4031	22.2854	0.0709	4.4599	0.1247	4.5846	1.1983	0.1149	1.3132		5,428.986 9	5,428.986 9	0.1443		5,432.017 9

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	0.3265	2.2289	17.4110	0.0269		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6
Total	0.3265	2.2289	17.4110	0.0269		0.0406	0.0406		0.0406	0.0406	0.0000	2,545.890 5	2,545.890 5	0.5975		2,558.438 6

3.6 Building Construction - 2025

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	0.8065	4.2658	11.7657	0.0269	0.7633	0.0972	0.8605	0.2177	0.0894	0.3072		2,513.863 9	2,513.863 9	0.0184		2,514.250 4
Worker	0.9596	1.1373	10.5197	0.0440	3.6966	0.0275	3.7241	0.9805	0.0255	1.0060		2,915.123 0	2,915.123 0	0.1259		2,917.767 5
Total	1.7662	5.4031	22.2854	0.0709	4.4599	0.1247	4.5846	1.1983	0.1149	1.3132		5,428.986 9	5,428.986 9	0.1443		5,432.017 9

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0775	11.0823	11.5655	0.0178		0.6077	0.6077		0.5591	0.5591		1,722.995 5	1,722.995 5	0.5573		1,734.697 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0775	11.0823	11.5655	0.0178		0.6077	0.6077		0.5591	0.5591		1,722.995 5	1,722.995 5	0.5573		1,734.697 8

3.7 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0348	0.0428	0.3941	1.2700e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		90.7493	90.7493	4.3500e-003		90.8408
Total	0.0348	0.0428	0.3941	1.2700e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		90.7493	90.7493	4.3500e-003		90.8408

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	0.4379	8.9163	13.5016	0.0178		0.4945	0.4945		0.4945	0.4945	0.0000	1,722.9955	1,722.9955	0.5573		1,734.6978
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4379	8.9163	13.5016	0.0178		0.4945	0.4945		0.4945	0.4945	0.0000	1,722.9955	1,722.9955	0.5573		1,734.6978

3.7 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0348	0.0428	0.3941	1.2700e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		90.7493	90.7493	4.3500e-003		90.8408
Total	0.0348	0.0428	0.3941	1.2700e-003	0.1068	7.6000e-004	0.1076	0.0283	7.0000e-004	0.0290		90.7493	90.7493	4.3500e-003		90.8408

3.8 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	20.5809	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057

3.8 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2410	0.2966	2.7286	8.7900e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		628.2647	628.2647	0.0302		628.8977
Total	0.2410	0.2966	2.7286	8.7900e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		628.2647	628.2647	0.0302		628.8977

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057

3.8 Architectural Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2410	0.2966	2.7286	8.7900e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		628.2647	628.2647	0.0302		628.8977
Total	0.2410	0.2966	2.7286	8.7900e-003	0.7393	5.2400e-003	0.7446	0.1961	4.8600e-003	0.2010		628.2647	628.2647	0.0302		628.8977

3.8 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	20.5577	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537

3.8 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2294	0.2784	2.5848	8.8000e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		617.7682	617.7682	0.0290		618.3774
Total	0.2294	0.2784	2.5848	8.8000e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		617.7682	617.7682	0.0290		618.3774

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.8537
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.8537

3.8 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2294	0.2784	2.5848	8.8000e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		617.7682	617.7682	0.0290		618.3774
Total	0.2294	0.2784	2.5848	8.8000e-003	0.7393	5.3300e-003	0.7447	0.1961	4.9400e-003	0.2011		617.7682	617.7682	0.0290		618.3774

3.8 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329
Total	20.5433	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329

3.8 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.2186	0.2629	2.4381	8.8000e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		607.4733	607.4733	0.0278		608.0577
Total	0.2186	0.2629	2.4381	8.8000e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		607.4733	607.4733	0.0278		608.0577

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.8329
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.8329

3.8 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.2186	0.2629	2.4381	8.8000e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		607.4733	607.4733	0.0278		608.0577
Total	0.2186	0.2629	2.4381	8.8000e-003	0.7393	5.3600e-003	0.7447	0.1961	4.9800e-003	0.2011		607.4733	607.4733	0.0278		608.0577

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8017
Total	20.5304	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8017

3.8 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.2087	0.2493	2.3065	8.8000e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		598.2875	598.2875	0.0268		598.8506
Total	0.2087	0.2493	2.3065	8.8000e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		598.2875	598.2875	0.0268		598.8506

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8017
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8017

3.8 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.2087	0.2493	2.3065	8.8000e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		598.2875	598.2875	0.0268		598.8506
Total	0.2087	0.2493	2.3065	8.8000e-003	0.7393	5.4000e-003	0.7447	0.1961	5.0100e-003	0.2011		598.2875	598.2875	0.0268		598.8506

3.8 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.7809
Total	20.5195	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.7809

3.8 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.1996	0.2373	2.1957	8.8000e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		590.1223	590.1223	0.0259		590.6666
Total	0.1996	0.2373	2.1957	8.8000e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		590.1223	590.1223	0.0259		590.6666

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	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.7809
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.7809

3.8 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.1996	0.2373	2.1957	8.8000e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		590.1223	590.1223	0.0259		590.6666
Total	0.1996	0.2373	2.1957	8.8000e-003	0.7393	5.4500e-003	0.7448	0.1961	5.0500e-003	0.2012		590.1223	590.1223	0.0259		590.6666

3.8 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	20.5096	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705

3.8 Architectural Coating - 2025

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	0.1919	0.2275	2.1039	8.8000e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		583.0246	583.0246	0.0252		583.5535
Total	0.1919	0.2275	2.1039	8.8000e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		583.0246	583.0246	0.0252		583.5535

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.7705
Total	20.3982	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.7705

3.8 Architectural Coating - 2025

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	0.1919	0.2275	2.1039	8.8000e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		583.0246	583.0246	0.0252		583.5535
Total	0.1919	0.2275	2.1039	8.8000e-003	0.7393	5.5000e-003	0.7448	0.1961	5.1000e-003	0.2012		583.0246	583.0246	0.0252		583.5535

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	21.6746	44.2955	228.7262	0.8213	58.5643	0.9014	59.4657	15.6321	0.8323	16.4644		59,540.2643	59,540.2643	2.0020		59,582.3053
Unmitigated	21.6746	44.2955	228.7262	0.8213	58.5643	0.9014	59.4657	15.6321	0.8323	16.4644		59,540.2643	59,540.2643	2.0020		59,582.3053

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	211.50	211.50	211.50	521,602	521,602
Condo/Townhouse	1,968.00	1,968.00	1,968.00	7,282,900	7,282,900
Single Family Housing	5,340.00	5,340.00	5,340.00	19,761,528	19,761,528
User Defined Commercial	50.00	50.00	50.00	113,203	113,203
Total	7,569.50	7,569.50	7,569.50	27,679,233	27,679,233

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6
Condo/Townhouse	16.80	7.10	7.90	41.60	18.80	39.60	86	11	3
Single Family Housing	16.80	7.10	7.90	41.60	18.80	39.60	86	11	3
User Defined Commercial	14.70	6.60	6.60	5.00	90.00	5.00	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511923	0.073395	0.191568	0.130918	0.036235	0.005199	0.012665	0.023708	0.001889	0.002027	0.006511	0.000534	0.003431

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697
NaturalGas Unmitigated	0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	9294.79	0.1002	0.8566	0.3645	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.5047	1,093.5047	0.0210	0.0201	1,100.1596
Single Family Housing	40457.4	0.4363	3.7284	1.5866	0.0238		0.3015	0.3015		0.3015	0.3015		4,759.6982	4,759.6982	0.0912	0.0873	4,788.6649
User Defined Commercial	400	4.3100e-003	0.0392	0.0329	2.4000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003		47.0588	47.0588	9.0000e-004	8.6000e-004	47.3452
Total		0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	9.29479	0.1002	0.8566	0.3645	5.4700e-003		0.0693	0.0693		0.0693	0.0693		1,093.5047	1,093.5047	0.0210	0.0201	1,100.1596
Single Family Housing	40.4574	0.4363	3.7284	1.5866	0.0238		0.3015	0.3015		0.3015	0.3015		4,759.6982	4,759.6982	0.0912	0.0873	4,788.6649
User Defined Commercial	0.4	4.3100e-003	0.0392	0.0329	2.4000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003		47.0588	47.0588	9.0000e-004	8.6000e-004	47.3452
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.5409	4.6242	1.9840	0.0295		0.3737	0.3737		0.3737	0.3737		5,900.2617	5,900.2617	0.1131	0.1082	5,936.1697

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	40.2329	0.7406	64.3649	3.4000e-003		1.2982	1.2982		1.2883	1.2883	0.0000	14,981.7543	14,981.7543	0.3959	0.2725	15,074.5558
Unmitigated	1,232.5782	16.9360	1,534.8107	0.5778		206.9559	206.9559		206.9498	206.9498	21,661.9500	9,200.5778	30,862.5278	20.1014	1.7039	31,812.8576

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	6.9486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	29.9912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,193.7081	16.1954	1,470.5201	0.5744		206.5992	206.5992		206.5931	206.5931	21,661.9500	9,084.7059	30,746.6559	19.9904	1.7039	31,694.6555
Landscaping	1.9303	0.7406	64.2906	3.4000e-003		0.3567	0.3567		0.3567	0.3567		115.8719	115.8719	0.1110		118.2022
Total	1,232.5782	16.9360	1,534.8107	0.5778		206.9559	206.9559		206.9498	206.9498	21,661.9500	9,200.5778	30,862.5278	20.1013	1.7039	31,812.8576

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	6.9486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	29.9912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.3627	6.0000e-005	0.0743	0.0000		0.9415	0.9415		0.9316	0.9316	0.0000	14,865.8824	14,865.8824	0.2849	0.2725	14,956.3536
Landscaping	1.9303	0.7406	64.2906	3.4000e-003		0.3567	0.3567		0.3567	0.3567		115.8719	115.8719	0.1110		118.2022
Total	40.2329	0.7406	64.3649	3.4000e-003		1.2982	1.2982		1.2883	1.2883	0.0000	14,981.7543	14,981.7543	0.3959	0.2725	15,074.5558

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

ATTACHMENT B

SCREEN3 for PM₁₀ and Crystalline Silica

10/02/16
21:13:11

*** SCREEN3 MODEL RUN ***
 *** VERSION DATED 13043 ***

Warner Ranch HR

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA
 EMISSION RATE (G/(S-M**2)) = 0.172000E-07
 SOURCE HEIGHT (M) = 3.0000
 LENGTH OF LARGER SIDE (M) = 841.5460
 LENGTH OF SMALLER SIDE (M) = 841.5460
 RECEPTOR HEIGHT (M) = 1.5000
 URBAN/RURAL OPTION = RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

 *** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
10.	1.192	6	1.0	1.0	10000.0	3.00	44.
100.	1.314	6	1.0	1.0	10000.0	3.00	45.
200.	1.433	6	1.0	1.0	10000.0	3.00	45.
300.	1.540	6	1.0	1.0	10000.0	3.00	45.
400.	1.637	6	1.0	1.0	10000.0	3.00	45.
500.	1.713	6	1.0	1.0	10000.0	3.00	45.
600.	1.805	6	1.0	1.0	10000.0	3.00	45.
700.	1.644	6	1.0	1.0	10000.0	3.00	45.
800.	1.451	6	1.0	1.0	10000.0	3.00	45.
900.	1.299	6	1.0	1.0	10000.0	3.00	45.
1000.	1.182	6	1.0	1.0	10000.0	3.00	45.
1100.	1.090	6	1.0	1.0	10000.0	3.00	45.
1200.	1.016	6	1.0	1.0	10000.0	3.00	45.
1300.	0.9544	6	1.0	1.0	10000.0	3.00	45.

Warner Screen dpm3.OUT

1400.	0.9024	6	1.0	1.0	10000.0	3.00	45.
1500.	0.8573	6	1.0	1.0	10000.0	3.00	45.
1600.	0.8178	6	1.0	1.0	10000.0	3.00	45.
1700.	0.7829	6	1.0	1.0	10000.0	3.00	45.
1800.	0.7515	6	1.0	1.0	10000.0	3.00	45.
1900.	0.7232	6	1.0	1.0	10000.0	3.00	45.
2000.	0.6976	6	1.0	1.0	10000.0	3.00	45.
2100.	0.6743	6	1.0	1.0	10000.0	3.00	45.
2200.	0.6530	6	1.0	1.0	10000.0	3.00	45.
2300.	0.6334	6	1.0	1.0	10000.0	3.00	45.
2400.	0.6155	6	1.0	1.0	10000.0	3.00	45.
2500.	0.5990	6	1.0	1.0	10000.0	3.00	45.
2600.	0.5837	6	1.0	1.0	10000.0	3.00	45.
2700.	0.5695	6	1.0	1.0	10000.0	3.00	45.
2800.	0.5562	6	1.0	1.0	10000.0	3.00	45.
2900.	0.5437	6	1.0	1.0	10000.0	3.00	45.
3000.	0.5319	6	1.0	1.0	10000.0	3.00	45.
3500.	0.4826	6	1.0	1.0	10000.0	3.00	45.
4000.	0.4439	6	1.0	1.0	10000.0	3.00	45.
4500.	0.4113	6	1.0	1.0	10000.0	3.00	45.
5000.	0.3832	6	1.0	1.0	10000.0	3.00	45.
5500.	0.3587	6	1.0	1.0	10000.0	3.00	45.
6000.	0.3369	6	1.0	1.0	10000.0	3.00	45.
6500.	0.3174	6	1.0	1.0	10000.0	3.00	45.
7000.	0.3001	6	1.0	1.0	10000.0	3.00	45.
7500.	0.2848	6	1.0	1.0	10000.0	3.00	45.
8000.	0.2710	6	1.0	1.0	10000.0	3.00	45.
8500.	0.2582	6	1.0	1.0	10000.0	3.00	45.
9000.	0.2464	6	1.0	1.0	10000.0	3.00	44.
9500.	0.2355	6	1.0	1.0	10000.0	3.00	45.
10000.	0.2253	6	1.0	1.0	10000.0	3.00	45.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:

600.	1.805	6	1.0	1.0	10000.0	3.00	45.
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*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	1.805	600.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

10/02/16
22:32:13

*** SCREEN3 MODEL RUN ***
 *** VERSION DATED 13043 ***

Warner Ranch Silica

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA
 EMISSION RATE (G/(S-M**2)) = 0.602000E-07
 SOURCE HEIGHT (M) = 3.0000
 LENGTH OF LARGER SIDE (M) = 841.5460
 LENGTH OF SMALLER SIDE (M) = 841.5460
 RECEPTOR HEIGHT (M) = 1.5000
 URBAN/RURAL OPTION = RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

 *** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
10.	4.173	6	1.0	1.0	10000.0	3.00	44.
100.	4.598	6	1.0	1.0	10000.0	3.00	45.
200.	5.014	6	1.0	1.0	10000.0	3.00	45.
300.	5.389	6	1.0	1.0	10000.0	3.00	45.
400.	5.730	6	1.0	1.0	10000.0	3.00	45.
500.	5.996	6	1.0	1.0	10000.0	3.00	45.
600.	6.318	6	1.0	1.0	10000.0	3.00	45.
700.	5.755	6	1.0	1.0	10000.0	3.00	45.
800.	5.079	6	1.0	1.0	10000.0	3.00	45.
900.	4.547	6	1.0	1.0	10000.0	3.00	45.
1000.	4.139	6	1.0	1.0	10000.0	3.00	45.
1100.	3.814	6	1.0	1.0	10000.0	3.00	45.
1200.	3.555	6	1.0	1.0	10000.0	3.00	45.
1300.	3.341	6	1.0	1.0	10000.0	3.00	45.

Warner Silica.OUT

1400.	3.158	6	1.0	1.0	10000.0	3.00	45.
1500.	3.000	6	1.0	1.0	10000.0	3.00	45.
1600.	2.862	6	1.0	1.0	10000.0	3.00	45.
1700.	2.740	6	1.0	1.0	10000.0	3.00	45.
1800.	2.630	6	1.0	1.0	10000.0	3.00	45.
1900.	2.531	6	1.0	1.0	10000.0	3.00	45.
2000.	2.442	6	1.0	1.0	10000.0	3.00	45.
2100.	2.360	6	1.0	1.0	10000.0	3.00	45.
2200.	2.285	6	1.0	1.0	10000.0	3.00	45.
2300.	2.217	6	1.0	1.0	10000.0	3.00	45.
2400.	2.154	6	1.0	1.0	10000.0	3.00	45.
2500.	2.096	6	1.0	1.0	10000.0	3.00	45.
2600.	2.043	6	1.0	1.0	10000.0	3.00	45.
2700.	1.993	6	1.0	1.0	10000.0	3.00	45.
2800.	1.947	6	1.0	1.0	10000.0	3.00	45.
2900.	1.903	6	1.0	1.0	10000.0	3.00	45.
3000.	1.862	6	1.0	1.0	10000.0	3.00	45.
3500.	1.689	6	1.0	1.0	10000.0	3.00	45.
4000.	1.554	6	1.0	1.0	10000.0	3.00	45.
4500.	1.440	6	1.0	1.0	10000.0	3.00	45.
5000.	1.341	6	1.0	1.0	10000.0	3.00	45.
5500.	1.255	6	1.0	1.0	10000.0	3.00	45.
6000.	1.179	6	1.0	1.0	10000.0	3.00	45.
6500.	1.111	6	1.0	1.0	10000.0	3.00	45.
7000.	1.050	6	1.0	1.0	10000.0	3.00	45.
7500.	0.9967	6	1.0	1.0	10000.0	3.00	45.
8000.	0.9484	6	1.0	1.0	10000.0	3.00	45.
8500.	0.9038	6	1.0	1.0	10000.0	3.00	45.
9000.	0.8625	6	1.0	1.0	10000.0	3.00	44.
9500.	0.8242	6	1.0	1.0	10000.0	3.00	45.
10000.	0.7885	6	1.0	1.0	10000.0	3.00	45.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:

600.	6.318	6	1.0	1.0	10000.0	3.00	45.
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*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
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SIMPLE TERRAIN	6.318	600.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

ATTACHMENT C

EMFAC2011

2018 EMFAC 50-50 Warner Ranch.rts

Title : Winter EMFAC 2018
 Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County
 Run Date : 2015/03/08 19:14:01
 Scen Year: 2018 -- All model years in the range 1974 to 2018 selected
 Season : Winter
 Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter
 Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara
 County

County Average San Diego County
 Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 50F Relative
 Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.148	0.149	0.317	1.097	1.871	5.099	0.223
10	0.096	0.096	0.208	0.701	1.325	3.869	0.148
15	0.065	0.065	0.145	0.460	0.974	3.087	0.105
20	0.047	0.047	0.106	0.318	0.744	2.589	0.078
25	0.036	0.035	0.081	0.233	0.590	2.284	0.062
30	0.029	0.028	0.065	0.178	0.486	2.120	0.051

Pollutant Name: Carbon Monoxide Temperature: 50F Relative
 Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	1.783	2.488	3.907	18.172	12.296	28.484	2.674
10	1.581	2.200	3.206	12.092	7.878	23.983	2.281
15	1.419	1.968	2.723	8.496	5.354	21.044	1.994
20	1.285	1.777	2.374	6.309	3.859	19.211	1.777
25	1.173	1.617	2.112	4.956	2.950	18.239	1.609
30	1.078	1.483	1.912	4.111	2.391	18.025	1.478

2018 EMFAC 50-50 Warner Ranch.rts

Pollutant Name: Oxides of Nitrogen Temperature: 50F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.208	0.307	0.922	2.138	22.956	1.361	0.433
10	0.182	0.264	0.790	1.800	17.648	1.315	0.370
15	0.162	0.233	0.698	1.600	14.271	1.286	0.325
20	0.147	0.209	0.633	1.537	12.132	1.272	0.294
25	0.136	0.192	0.591	1.546	10.837	1.271	0.273
30	0.128	0.179	0.565	1.561	10.165	1.281	0.259

Pollutant Name: Carbon Dioxide Temperature: 50F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	922.840	1207.079	1642.707	2504.321	2519.319	261.700	1139.821
10	697.537	912.164	1219.000	1693.036	2376.439	218.725	857.203
15	547.237	715.431	945.966	1206.507	2292.065	188.090	670.781
20	445.605	582.397	766.330	907.341	2240.690	166.374	545.827
25	376.606	492.070	646.958	726.555	2208.761	151.386	461.614
30	330.358	431.510	568.258	612.555	2188.870	141.756	405.454

Pollutant Name: Sulfur Dioxide Temperature: 50F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.012	0.017	0.026	0.024	0.003	0.012
10	0.007	0.009	0.012	0.017	0.023	0.003	0.009
15	0.006	0.007	0.010	0.012	0.022	0.002	0.007
20	0.005	0.006	0.008	0.009	0.022	0.002	0.006
25	0.004	0.005	0.007	0.007	0.021	0.002	0.005
30	0.003	0.004	0.006	0.006	0.021	0.002	0.004

Pollutant Name: PM10 Temperature: 50F Relative Humidity: 50%

2018 EMFAC 50-50 Warner Ranch.rts

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.010	0.017	0.044	0.574	0.001	0.012
10	0.006	0.007	0.012	0.030	0.416	0.001	0.008
15	0.004	0.005	0.009	0.021	0.313	0.000	0.006
20	0.003	0.003	0.007	0.015	0.243	0.000	0.004
25	0.002	0.003	0.006	0.013	0.196	0.000	0.003
30	0.002	0.002	0.005	0.011	0.164	0.000	0.003

Pollutant Name: PM10 - Tire Wear Temperature: 50F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.008	0.008	0.008	0.008	0.008	0.008	0.008
10	0.008	0.008	0.008	0.008	0.008	0.008	0.008
15	0.008	0.008	0.008	0.008	0.008	0.008	0.008
20	0.008	0.008	0.008	0.008	0.008	0.008	0.008
25	0.008	0.008	0.008	0.008	0.008	0.008	0.008
30	0.008	0.008	0.008	0.008	0.008	0.008	0.008

Pollutant Name: PM10 - Brake Wear Temperature: 50F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.037	0.037	0.041	0.043	0.705	0.037	0.039
10	0.037	0.037	0.041	0.043	0.705	0.037	0.039
15	0.037	0.037	0.041	0.043	0.705	0.037	0.039
20	0.037	0.037	0.041	0.043	0.705	0.037	0.039
25	0.037	0.037	0.041	0.043	0.705	0.037	0.039
30	0.037	0.037	0.041	0.043	0.705	0.037	0.039

Pollutant Name: Gasoline - mi/gal Temperature: 50F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
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2018 EMFAC 50-50 Warner Ranch.rts							
5	9.065	6.977	4.906	3.305	3.291	26.083	7.866
10	11.991	9.229	6.588	4.967	4.947	31.334	10.403
15	15.282	11.761	8.518	7.067	7.039	36.462	13.259
20	18.766	14.441	10.598	9.516	9.479	41.119	16.285
25	22.204	17.087	12.683	12.128	12.082	44.941	19.273
30	25.317	19.481	14.594	14.630	14.576	47.579	21.976

Pollutant Name: Diesel - mi/gal Temperature: 50F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	21.065	21.158	19.330	4.227	3.999	0.000	17.896
10	24.919	24.896	19.366	5.135	3.999	0.000	18.403
15	28.448	28.284	19.400	6.261	3.999	0.000	18.873
20	31.405	31.100	19.429	7.445	3.999	0.000	19.273
25	33.586	33.162	19.450	7.957	3.999	0.000	19.559
30	34.847	34.349	19.463	8.446	3.999	0.000	19.729

Title : Winter EMFAC 2018
Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County
Run Date : 2015/03/08 19:14:01
Scen Year: 2018 -- All model years in the range 1974 to 2018 selected
Season : Winter
Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter
Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara County

County Average San Diego County Average

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 50F Relative Humidity: ALL

2018 EMFAC 50-50 Warner Ranch.rts

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.034	0.039	0.097	0.558	0.115	1.409	0.065
10	0.064	0.074	0.182	0.976	0.212	1.615	0.113
20	0.119	0.141	0.342	1.748	0.390	2.023	0.203
30	0.169	0.202	0.489	2.434	0.548	2.427	0.286
40	0.215	0.258	0.623	3.035	0.686	2.827	0.361
50	0.256	0.308	0.744	3.551	0.804	3.223	0.429
60	0.291	0.353	0.850	3.969	0.900	3.494	0.488
120	0.388	0.468	1.032	2.961	0.694	2.976	0.592
180	0.237	0.298	0.784	3.145	0.737	2.535	0.416
240	0.251	0.316	0.832	3.323	0.778	2.704	0.441
300	0.265	0.334	0.878	3.495	0.818	2.871	0.466
360	0.279	0.351	0.924	3.662	0.857	3.035	0.490
420	0.293	0.368	0.969	3.823	0.895	3.196	0.514
480	0.306	0.385	1.014	3.979	0.931	3.354	0.537
540	0.319	0.402	1.057	4.129	0.965	3.510	0.560
600	0.332	0.419	1.100	4.274	0.999	3.663	0.583
660	0.344	0.435	1.142	4.413	1.031	3.814	0.605
720	0.356	0.451	1.183	4.547	1.062	3.962	0.627

Pollutant Name: Carbon Monoxide
Humidity: ALL

Temperature: 50F Relative

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.410	0.544	1.216	9.829	1.387	4.351	0.737
10	0.790	1.060	2.341	18.632	2.661	5.553	1.396
20	1.514	2.044	4.482	35.126	5.047	7.838	2.648
30	2.189	2.965	6.475	50.139	7.218	9.966	3.813
40	2.816	3.822	8.319	63.670	9.175	11.937	4.890
50	3.395	4.616	10.015	75.719	10.917	13.749	5.879
60	3.926	5.347	11.564	86.287	12.443	15.404	6.781
120	5.640	7.405	13.196	50.031	7.285	18.719	8.226
180	3.241	4.463	8.628	51.765	7.522	11.919	5.227
240	3.462	4.777	9.198	53.517	7.764	13.372	5.571
300	3.661	5.059	9.714	55.286	8.010	14.690	5.883
360	3.840	5.310	10.178	57.072	8.260	15.872	6.164
420	3.997	5.530	10.590	58.876	8.515	16.917	6.415
480	4.133	5.718	10.949	60.697	8.773	17.827	6.634
540	4.248	5.875	11.255	62.536	9.036	18.601	6.822
600	4.342	6.001	11.508	64.392	9.304	19.238	6.979
660	4.415	6.095	11.709	66.265	9.575	19.740	7.105

2018 EMFAC 50-50 Warner Ranch.rts

720	4.466	6.158	11.857	68.156	9.851	20.105	7.200
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Pollutant Name: Oxides of Nitrogen Temperature: 50F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.101	0.194	0.622	1.203	0.326	0.195	0.247
10	0.112	0.211	0.698	1.809	0.490	0.236	0.279
20	0.130	0.242	0.833	2.873	0.779	0.309	0.336
30	0.146	0.268	0.946	3.740	1.015	0.369	0.383
40	0.158	0.289	1.036	4.410	1.197	0.416	0.421
50	0.167	0.305	1.104	4.883	1.325	0.452	0.449
60	0.174	0.317	1.148	5.160	1.400	0.475	0.467
120	0.186	0.342	1.226	5.278	1.432	0.485	0.498
180	0.200	0.366	1.258	5.258	1.427	0.483	0.518
240	0.198	0.363	1.249	5.228	1.419	0.474	0.514
300	0.196	0.359	1.235	5.188	1.408	0.463	0.508
360	0.193	0.353	1.216	5.137	1.394	0.449	0.501
420	0.189	0.346	1.193	5.076	1.378	0.433	0.491
480	0.184	0.337	1.164	5.005	1.359	0.415	0.479
540	0.178	0.326	1.131	4.923	1.336	0.394	0.466
600	0.172	0.314	1.093	4.831	1.312	0.371	0.450
660	0.165	0.300	1.049	4.729	1.284	0.345	0.432
720	0.157	0.285	1.001	4.616	1.254	0.318	0.413

Pollutant Name: Carbon Dioxide Temperature: 50F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.418	15.874	18.152	10.898	1.740	16.572	14.544
10	14.044	18.091	21.331	20.411	3.356	18.888	16.731
20	17.792	23.155	28.362	39.273	6.561	23.423	21.662
30	22.203	29.058	36.289	57.917	9.729	27.832	27.337
40	27.278	35.801	45.113	76.341	12.860	32.115	33.754
50	33.016	43.383	54.833	94.547	15.955	36.270	40.915
60	39.417	51.804	65.450	112.534	19.013	40.300	48.819
120	90.796	118.322	144.156	190.467	32.258	58.554	109.855
180	103.142	134.573	164.582	224.366	38.053	62.154	125.048
240	115.444	150.734	184.750	256.264	43.507	65.544	140.119
300	127.701	166.805	204.657	286.161	48.619	68.722	155.068

2018 EMFAC 50-50 Warner Ranch.rts

360	139.913	182.785	224.306	314.058	53.388	71.690	169.895
420	152.080	198.675	243.695	339.955	57.816	74.447	184.601
480	164.203	214.475	262.825	363.850	61.901	76.994	199.184
540	176.281	230.184	281.695	385.745	65.644	79.330	213.646
600	188.314	245.803	300.306	405.640	69.046	81.455	227.987
660	200.303	261.331	318.657	423.534	72.105	83.370	242.205
720	212.247	276.769	336.750	439.427	74.822	85.074	256.302

Pollutant Name: Sulfur Dioxide Temperature: 50F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.001	0.000	0.000	0.000
20	0.000	0.000	0.000	0.001	0.000	0.000	0.000
30	0.000	0.000	0.000	0.001	0.000	0.001	0.000
40	0.000	0.000	0.001	0.002	0.000	0.001	0.000
50	0.000	0.001	0.001	0.002	0.000	0.001	0.001
60	0.000	0.001	0.001	0.003	0.000	0.001	0.001
120	0.001	0.001	0.002	0.003	0.000	0.001	0.001
180	0.001	0.001	0.002	0.003	0.001	0.001	0.001
240	0.001	0.002	0.002	0.004	0.001	0.001	0.002
300	0.001	0.002	0.002	0.004	0.001	0.001	0.002
360	0.001	0.002	0.002	0.004	0.001	0.001	0.002
420	0.002	0.002	0.003	0.004	0.001	0.001	0.002
480	0.002	0.002	0.003	0.005	0.001	0.001	0.002
540	0.002	0.002	0.003	0.005	0.001	0.001	0.002
600	0.002	0.003	0.003	0.005	0.001	0.001	0.002
660	0.002	0.003	0.003	0.005	0.001	0.001	0.003
720	0.002	0.003	0.004	0.006	0.001	0.001	0.003

Pollutant Name: PM10 Temperature: 50F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.001	0.000	0.001	0.000
10	0.000	0.000	0.001	0.001	0.000	0.001	0.000
20	0.001	0.001	0.001	0.002	0.000	0.001	0.001
30	0.001	0.001	0.001	0.002	0.000	0.000	0.001
40	0.001	0.002	0.002	0.003	0.000	0.000	0.001

2018 EMFAC 50-50 Warner Ranch.rts							
50	0.001	0.002	0.002	0.003	0.000	0.000	0.002
60	0.002	0.002	0.002	0.004	0.000	0.000	0.002
120	0.002	0.003	0.003	0.005	0.000	0.001	0.003
180	0.003	0.004	0.004	0.005	0.000	0.001	0.003
240	0.003	0.004	0.004	0.006	0.000	0.001	0.003
300	0.003	0.004	0.004	0.006	0.000	0.001	0.004
360	0.003	0.004	0.004	0.006	0.000	0.002	0.004
420	0.003	0.004	0.004	0.006	0.000	0.002	0.004
480	0.004	0.005	0.005	0.007	0.000	0.002	0.004
540	0.004	0.005	0.005	0.007	0.000	0.002	0.004
600	0.004	0.005	0.005	0.007	0.000	0.002	0.004
660	0.004	0.005	0.005	0.007	0.000	0.002	0.004
720	0.004	0.005	0.005	0.008	0.000	0.002	0.004

Title : Winter EMFAC 2018

Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County

Run Date : 2015/03/08 19:14:01

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season : Winter

Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter

Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara County

County Average	San Diego	County
Average		

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 50F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.028	0.043	0.039	0.025	0.014	0.097	0.034
10	0.051	0.079	0.072	0.046	0.026	0.180	0.064
20	0.071	0.109	0.100	0.064	0.037	0.251	0.088
30	0.087	0.134	0.123	0.079	0.045	0.310	0.109

2018 EMFAC 50-50 Warner Ranch.rts
 40 0.101 0.155 0.143 0.092 0.052 0.360 0.126

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : Winter EMFAC 2018
 Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County
 Run Date : 2015/03/08 19:14:01
 Scen Year: 2018 -- All model years in the range 1974 to 2018 selected
 Season : Winter
 Area : San Diego

 Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter
 Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara
 County

County Average San Diego County
 Average

Table 5a: Partial Day Diurnal Loss Emissions
 (grams/hour)

Pollutant Name: Reactive Org Gases				Temperature: ALL		Relative Humidity: ALL	
Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
50	0.007	0.013	0.012	0.001	0.000	0.014	0.010

Title : Winter EMFAC 2018
 Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County
 Run Date : 2015/03/08 19:14:01
 Scen Year: 2018 -- All model years in the range 1974 to 2018 selected
 Season : Winter

2018 EMFAC 50-50 Warner Ranch.rts

Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter

Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara
County

County Average San Diego County
Average

Table 5b: Multi-Day Diurnal Loss Emissions

(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative
Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
50	0.001	0.001	0.001	0.000	0.000	0.001	0.001

Title : Winter EMFAC 2018

Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County

Run Date : 2015/03/08 19:14:01

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season : Winter

Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter

Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara
County

County Average San Diego County
Average

Table 6a: Partial Day Resting Loss Emissions

(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative
Humidity: ALL

2018 EMFAC 50-50 Warner Ranch.rts

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
50	0.006	0.010	0.010	0.001	0.000	0.011	0.008

Title : Winter EMFAC 2018

Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County

Run Date : 2015/03/08 19:14:01

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season : Winter

Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter

Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara
County

County Average San Diego County
Average

Table 6b: Multi-Day Resting Loss Emissions

(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative
Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
50	0.000	0.001	0.001	0.000	0.000	0.001	0.001

Title : Winter EMFAC 2018

Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County

Run Date : 2015/03/08 19:14:01

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season : Winter

2018 EMFAC 50-50 Warner Ranch.rts

Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter

Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara
 County

County Average San Diego County
 Average

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative
 Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.530	0.275	0.179	0.007	0.002	0.007	1.000
%TRIP	0.513	0.256	0.213	0.009	0.000	0.008	1.000
%VEH	0.523	0.264	0.172	0.013	0.001	0.027	1.000

Title : Winter EMFAC 2018

Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County

Run Date : 2015/03/08 19:14:01

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season : Winter

Area : San Diego

Year: 2018 -- Model Years 1974 to 2018 Inclusive -- Winter

Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara
 County

County Average San Diego County
 Average

Table 8: Evaporative Running Loss Emissions

(grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 50F Relative

2018 EMFAC 50-50 Warner Ranch.rts

Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.007	0.261	0.278	1.096	0.154	0.016	0.133
2	0.008	0.136	0.146	0.575	0.080	0.050	0.072
3	0.010	0.097	0.105	0.403	0.056	0.069	0.054
4	0.013	0.079	0.086	0.320	0.044	0.081	0.047
5	0.015	0.068	0.075	0.270	0.038	0.089	0.043
10	0.020	0.049	0.054	0.174	0.025	0.112	0.036
15	0.022	0.045	0.050	0.147	0.022	0.125	0.035
20	0.024	0.045	0.049	0.137	0.021	0.136	0.036
25	0.025	0.047	0.051	0.134	0.021	0.145	0.037
30	0.026	0.049	0.052	0.139	0.022	0.152	0.039
35	0.027	0.051	0.054	0.144	0.023	0.158	0.040
40	0.028	0.053	0.056	0.149	0.024	0.164	0.041
45	0.029	0.054	0.058	0.153	0.025	0.170	0.043
50	0.029	0.056	0.059	0.158	0.025	0.175	0.044
55	0.030	0.057	0.061	0.162	0.026	0.180	0.045
60	0.030	0.059	0.062	0.166	0.027	0.185	0.046

ATTACHMENT D

CALINE4 Existing and Existing plus Project
AM and PM Scenarios

SR 76 and Mission Cumulative AM.dat.out

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR 76 and Mission AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 300. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 3.8 PPM
SIGTH= 5. DEGREES TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* *	LINK COORDINATES (M) X1 Y1 X2 Y2	* *	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. west section	*	-150 0 0 0	*	AG	2187	2.7	0.0	10.1
B. east section	*	-150 0 0 0	*	AG	2137	2.7	0.0	10.1
C. south sectio	*	0 -150 0 0	*	AG	0	2.7	0.0	10.1
D. north sectio	*	0 150 0 0	*	AG	1293	2.7	0.0	10.1

III. RECEPTOR LOCATIONS

RECEPTOR	* *	COORDINATES (M) X Y Z
1. Recpt 1	*	15 15 1.8
2. Recpt 2	*	-15 15 1.8
3. Recpt 3	*	-15 -15 1.8
4. Recpt 4	*	15 -15 1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* *	BRG (DEG)	* *	PRED CONC (PPM)	* *	CONC/LINK (PPM) A B C D
1. Recpt 1	*	259.	*	4.7	*	0.4 0.4 0.0 0.1

SR 76 and Mission Cumulative AM.dat.out										
2. Recpt	2	*	257.	*	4.5	*	0.4	0.4	0.0	0.0
3. Recpt	3	*	11.	*	4.5	*	0.2	0.2	0.0	0.3
4. Recpt	4	*	281.	*	4.6	*	0.4	0.4	0.0	0.0

♀
†

SR 76 and Mission Cumulative PM.dat.out

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR 76 and Mission PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 300. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 3.8 PPM
SIGTH= 5. DEGREES TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)	*		EF	H	W
DESCRIPTION	*	X1 Y1 X2 Y2	*	TYPE	(G/MI)	(M)	(M)
A. west section	*	-150 0 0 0	*	AG	1941 2.7	0.0	10.1
B. east section	*	-150 0 0 0	*	AG	3701 2.7	0.0	10.1
C. south sectio	*	0 -150 0 0	*	AG	0 2.7	0.0	10.1
D. north sectio	*	0 150 0 0	*	AG	1171 2.7	0.0	10.1

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)
	*	X Y Z
1. Recpt 1	*	15 15 1.8
2. Recpt 2	*	-15 15 1.8
3. Recpt 3	*	-15 -15 1.8
4. Recpt 4	*	15 -15 1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG (DEG)	*	PRED CONC (PPM)	*	CONC/LINK (PPM)	A	B	C	D
1. Recpt 1	*	259.	*	4.9	*	0.4 0.6 0.0 0.1				

SR 76 and Mission Cumulative PM.dat.out										
2. Recpt	2	*	257.	*	4.7	*	0.3	0.6	0.0	0.0
3. Recpt	3	*	283.	*	4.7	*	0.3	0.6	0.0	0.0
4. Recpt	4	*	281.	*	4.8	*	0.4	0.6	0.0	0.0

♀
†

SR 76 and Olive Hill AM.dat.out

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR 76 and Olive Road AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 300. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 3.8 PPM
SIGTH= 5. DEGREES TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	* LINK COORDINATES (M)	* EF	H	W
DESCRIPTION	X1 Y1 X2 Y2 * TYPE VPH (G/MI) (M) (M)			
A. west section	* -150 0 0 0 * AG 602 2.7 0.0 10.1			
B. east section	* -150 0 0 0 * AG 647 2.7 0.0 10.1			
C. south sectio	* 0 -150 0 0 * AG 1709 2.7 0.0 10.1			
D. north sectio	* 0 150 0 0 * AG 2803 2.7 0.0 10.1			

III. RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (M)
	X Y Z
1. Recpt 1	* 15 15 1.8
2. Recpt 2	* -15 15 1.8
3. Recpt 3	* -15 -15 1.8
4. Recpt 4	* 15 -15 1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	* CONC/ LINK (PPM)	A	B	C	D
1. Recpt 1	* 260.	* 4.4	* 0.1	0.1	0.0	0.3	

						SR 76 and Olive Hill AM.dat.out				
2.	Recpt	2	*	169.	*	4.3	*	0.1	0.1	0.3 0.0
3.	Recpt	3	*	11.	*	4.4	*	0.1	0.1	0.0 0.5
4.	Recpt	4	*	280.	*	4.3	*	0.1	0.1	0.2 0.0

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SR 76 and Olive Hill PM.dat.out

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR 76 and Olive Road PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 300. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 3.8 PPM
SIGTH= 5. DEGREES TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*		EF	H	W
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. west section	*	-150	0	0	0	* AG	561	2.7	0.0	10.1
B. east section	*	-150	0	0	0	* AG	569	2.7	0.0	10.1
C. south sectio	*	0	-150	0	0	* AG	3129	2.7	0.0	10.1
D. north sectio	*	0	150	0	0	* AG	2240	2.7	0.0	10.1

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. Recpt 1	*	15	15	1.8
2. Recpt 2	*	-15	15	1.8
3. Recpt 3	*	-15	-15	1.8
4. Recpt 4	*	15	-15	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	*	BRG	* (DEG)	* PRED	* CONC	* (PPM)	CONC/LINK (PPM)			
	*						A	B	C	D
1. Recpt 1	*	260.	*	4.3	*	0.1	0.1	0.0	0.2	

					SR 76 and Olive Hill PM.dat.out				
2. Recpt	2	*	169.	*	4.5	*	0.1	0.1	0.5 0.0
3. Recpt	3	*	11.	*	4.3	*	0.1	0.1	0.0 0.4
4. Recpt	4	*	280.	*	4.4	*	0.1	0.1	0.3 0.0

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