

AIR QUALITY ASSESSMENT

**Smilax 62 Unit Development Plan
APN 217-191-02 and APN 217-191-03
County of San Diego, CA**

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LIST OF COMMON ACRONYMS

Air Quality Impact Assessments (AQIA)
California Air Resource Board (CARB)
California Ambient Air Quality Standards (CAAQS)
California Environmental Quality Act (CEQA)
Carbon Dioxide (CO₂)
Diesel Particulate Matter (DPM)
Environmental Protection Agency (EPA)
EPA Office of Air Quality Planning and Standards (OAQPS)
Hazardous Air Pollutants (HAPs)
Hydrogen Sulfide (H₂S)
Level of Service (LOS)
Methane (CH₄)
National ambient air quality standards (NAAQS)
Nitrous Oxide (N₂O)
Project Design Features (PDF)
Reactive Organic Gas (ROG)
Regional Air Quality Strategy (RAQS)
San Diego Air Basin (SDAB)
San Diego Air Pollution Control District (SDAPCD)
San Diego Association of Governments (SANDAG)
South Coast Air Quality Management District (SCAQMD)
Square Foot (SF)
State Implementation Plan (SIP)
Toxic Air Contaminants (TACs)
Vehicle Miles Traveled (VMT)
Volatile Organic Compounds (VOC)

EXECUTIVE SUMMARY

This air quality impact study has been completed to determine the air quality impacts associated with the development of the proposed Project. The Project known as "Smilax" envisions providing a total of 62 attached condominiums on approximately 4.9 acres located at 425 Smilax Road (APN 217-191-02) and the parcel adjacent to the south (APN 217-191-03) in the North County Metropolitan Subregional Plan Area within unincorporated San Diego County. The Project site is located to the west of Smilax Road approximately 600 feet south of the intersection of Mimosa Avenue and Smilax Road.

Project design features (PDFs) have been included in this Project. The applicant has agreed to implement all PDFs and will be included in the Project's conditions of approval. The following PDFs applied in this analysis with the purpose of reducing both Air Quality and Greenhouse Gas (GHG) emissions and include:

1. Project-related construction equipment shall use Tier 4 construction equipment, as defined by United States Environmental Protection Agency (EPA) (EPA, 2018)/ California Air Resources Board (CARB) standards (CARB, 2012).
2. The Project will utilize architectural coatings compliant with San Diego Air Pollution Control District (SDAPCD) Rule 67 (SDAPCD, 2015).
3. Install high-efficiency Light Emitting Diode (LED) street and area lighting to achieve reduction in overall lighting energy.
4. The Project will not install hearth options in all 62 residential units.
5. The Project will be designed to use 100 percent electric energy for all Project operations. Natural Gas lines? will not be installed onsite.
6. In accordance with the California Integrated Waste Management Act (AB 939), and to be consistent with AB 341's statewide 75 percent diversion policy, the Project will seek to also achieve a 75 percent diversion goal by providing areas onsite for storage and collection of recyclables and green waste which would be collected and processed offsite ensuring that both recyclables and organics such as green waste can be substantially diverted from landfills. As part of the homeowner disclosure forms, the Project would also and provide literature promoting recycling and green waste management to achieve waste diversion.
7. Weather-based irrigation systems in common areas would be installed that would include rain sensing timers.
8. The Project applicant will be required to comply with the County's Water Conservation in Landscaping Ordinance and submit a Landscape Document Package demonstrating a 40 percent reduction in outdoor water use.
9. Install low flow indoor water fixtures in all residential units to achieve a 20 percent reduction in flow.
10. The Project will install 124 Native trees will be planted within the Project site.

11. Install a single Level 2 electric vehicle (EV) charging stations within each of the 62 residential unit garages.
12. Install two Level 2 EV Charging stations within the visitor parking area onsite.
13. The Project will install 3 kilowatts (kW) of photovoltaic (PV) solar for each residential unit for a total of 186 kW or 620 300-watt panels or an average of 10 PV panels per residential unit.

All construction is anticipated to last two years from 2020-2021, with operations to initially begin in 2022 and the first full year of operations being 2023. As identified above, the proposed Project is committed to using Tier 4 with DPF construction equipment, which would minimize health risk impacts to less than 10 in one million exposed.

The only source of odors during construction would be from construction equipment or paving activities. Since odors generated during construction would-be short-term events, a less than significant odor impact is expected during construction. During operations, it should be noted that residential uses are not typically considered odor generators.

Based upon the analysis of construction and operation activities for the proposed Project, direct operational or direct construction impacts would be less than significant. A review of nearby cumulative Projects showed that there are zero nearby cumulative construction Projects within a ½ mile radius. Given this, a less than significant cumulative construction impact is expected.

The Project would require a General Plan Amendment (GPA) to change the sites existing VR-2 Land Use Designation to VR-15. The Project seeks to add 62 multi-family units though the site would support up to 9 single family homes. Given this, the Project would add 53 additional residential units than what is currently permitted by the land use designation.

The Regional Air Quality Strategy (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. Projects that create more growth than Projected by SANDAG may create a significant impact if the Project produces unmitigable air quality emissions or if the Project produces cumulative impacts.

The proposed Project would construct an additional 53 units within the proposed site which is located within an infill area surrounded partially by the City of San Marcos and the City of Vista. Growth within the area, which includes both Vista and San Marcos, calculated by the San Diego Association of Governments (SANDAG) is expected to continuously grow from approximately 510,768 in 2020 to 583,744 in 2035 and up to 612,581 in 2050 (SANDAG, 2019). This data largely is based on buildout of undeveloped areas using buildout projections in accordance with site zoning designators. Full development of all GP areas though is not always realistic due the

fact that not all land is equally developable (i.e geographical limitations such as steep slopes, flood plains etc., easements, biological restrictions etc.). Given this, it should be noted that SANDAG projections are somewhat conservative.

The RAQS is updated regularly with the last update being completed in 2016. Per the 2016 RAQS, the largest contributors to air quality emissions are motor vehicles. The proposed Project is an infill project which will provide needed housing. Based on the project traffic study, the average trip distance is 6.14 miles which is lower than a typical development based on statewide averages. This lower trip distance is attributed to the complementary uses (i.e., commercial, retail, and employment uses) in the project vicinity. The project's average trip length would support the reduction of regional air quality emissions by reducing average trip lengths in the County since motor vehicles are the primary contributor to air emissions in the County.

Additionally, based on Regional Housing Needs Assessment (RHNA) for the County shows growth projections of 22,412 home between the years of 2010 and 2020 and an additional 72,976 homes between 2020 and 2035 and an additional 28,837 homes from 2035 and 2050. Also, as of 2017, the County has only constructed and permitted only 8,082 homes based on the RHNA fact sheet prepared by SANDAG (SANDAG, 2018).

The proposed project has a land use designation of VR-2 and the proposed Project seeks to re-designate the land use to VR-15. Given this, the proposed Project was not included in the underlying growth estimates for the SDAB and would not have been directly considered in the last 2016 RAQS. This added density can however be seen as a regional benefit since the project would be close to both the City of Vista and the City of San Marcos. Additionally, the added housing would also be consistent with RHNA population projections. Despite these growth projection facts, the project isn't specifically addressed in the 2016 RAQS and because the project was not accounted for in RAQS, it is not consistent and results in a potentially significant impact that would be mitigated through AQ-1.

Mitigation AQ-1: Upon approval of the project and prior to the issuance of grading permits, the County shall provide a revised housing and population forecasts to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

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 reduce impacts to the extent feasible.

1.2 Project Location

The Project site is located on a 4.9 acre site located at 425 Smilax Road (APN 217-191-02) and the parcel adjacent to the south (APN 217-191-03) in the North County Metropolitan Subregional Plan Area within unincorporated San Diego County. The Project site is located to the west of Smilax Road roughly 600 feet south of the intersection of Mimosa Avenue and Smilax Road. Access would be provided by a 24-foot wide private street connecting to Smilax Road and a gated secondary emergency access road connecting to Poinsettia Avenue. A general Project vicinity map is shown in Figure 1-A of this report.

1.3 Project Description

The Project envisions providing 62 multi-family residential units which would be spread among 15 two story buildings. Each building would contain between three and five condominium units and each unit would have a two-car garage. The Project would provide a total of 147 parking spaces including 124 garage parking spaces (two per unit) and 23 open parking lot spaces for use by residents and visitors. The Project would also include two common open space areas, including a turf dog park in the southeastern corner of the Project site and a larger active use area located in the middle of the development. The larger active use area would include a tot lot (play equipment and benches), an open turn play area, a BBQ, and a shaded trellis. Construction of the Project is expected to begin in 2020 with completion expected in 2021. The proposed Project would include the demolition of a single-family house and garage with a combined area of approximately 2,700 square feet (SF). The Project site plan is shown in Figure 1-B.

Figure 1-A: Project Vicinity Map



Source: (Google, 2019)

This detailed site plan illustrates a residential development layout. The plan features 15 buildings, labeled BLDG 1 through BLDG 15, arranged in a grid-like fashion. Each building is shown with its footprint, internal room divisions, and associated parking spaces. The buildings are situated along several private drives: PRIVATE DR 'A' (top), PRIVATE DR 'B' (middle), PRIVATE DR 'C' (bottom), PRIVATE DR 'D' (left), and PRIVATE DR 'E' (right). There are also two designated 'OPEN SPACE' areas. The plan includes numerous annotations such as 'PC1 1', 'PC1 2', 'PC1 3', 'PC1 4', 'PC1 5', 'PC1 6', 'PC1 7', 'PC1 8', 'PC1 9', 'PC1 10', 'PC1 11', 'PC1 12', 'PC1 13', 'PC1 14', 'PC1 15', 'PC1 16', 'PC1 17', 'PC1 18', 'PC1 19', 'PC1 20', 'PC1 21', 'PC1 22', 'PC1 23', 'PC1 24', 'PC1 25', 'PC1 26', 'PC1 27', 'PC1 28', 'PC1 29', 'PC1 30', 'PC1 31', 'PC1 32', 'PC1 33', 'PC1 34', 'PC1 35', 'PC1 36', 'PC1 37', 'PC1 38', 'PC1 39', 'PC1 40', 'PC1 41', 'PC1 42', 'PC1 43', 'PC1 44', 'PC1 45', 'PC1 46', 'PC1 47', 'PC1 48', 'PC1 49', 'PC1 50', 'PC1 51', 'PC1 52', 'PC1 53', 'PC1 54', 'PC1 55', 'PC1 56', 'PC1 57', 'PC1 58', 'PC1 59', 'PC1 60', 'PC1 61', 'PC1 62', 'PC1 63', 'PC1 64', 'PC1 65', 'PC1 66', 'PC1 67', 'PC1 68', 'PC1 69', 'PC1 70', 'PC1 71', 'PC1 72', 'PC1 73', 'PC1 74', 'PC1 75', 'PC1 76', 'PC1 77', 'PC1 78', 'PC1 79', 'PC1 80', 'PC1 81', 'PC1 82', 'PC1 83', 'PC1 84', 'PC1 85', 'PC1 86', 'PC1 87', 'PC1 88', 'PC1 89', 'PC1 90', 'PC1 91', 'PC1 92', 'PC1 93', 'PC1 94', 'PC1 95', 'PC1 96', 'PC1 97', 'PC1 98', 'PC1 99', 'PC1 100'. The plan also shows various other features like 'GRASSY AREA', 'PARKING LOT', 'WALKWAY', 'CIRCULAR DRIVE', 'PRIVATE DRIVE', 'OPEN SPACE', 'BLDG 1', 'BLDG 2', 'BLDG 3', 'BLDG 4', 'BLDG 5', 'BLDG 6', 'BLDG 7', 'BLDG 8', 'BLDG 9', 'BLDG 10', 'BLDG 11', 'BLDG 12', 'BLDG 13', 'BLDG 14', 'BLDG 15'. The plan is oriented with a north arrow pointing towards the top right. The overall layout is rectangular, with buildings and drives arranged in a systematic pattern. The plan is a technical drawing, likely a site plan or a floor plan, used for construction or planning purposes. It provides a clear and detailed view of the proposed development, showing the relationship between the buildings, drives, and open spaces. The plan is a valuable tool for understanding the layout and design of the project.

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The site is subject to the General Plan Village Regional Category, Village Residential 2 (VR-2) Land Use Designation. The Project would require a General Plan Amendment (GPA) to amend the General Plan Land Use Designation from VR-2 to Village Residential 15 (VR-15). The VR-15 designation would allow for a residential density of 15.0 dwelling units per acre (du/ac). In addition, the Project would require a Zoning Reclassification (Rezone) to change the Use Regulation from RR to Multi-Family Residential (RM) and building type from "C"- Single Detached only to "K" to allow for multi dwelling units. The Rezone would also add the "D" Design Review Special Area Designator to ensure the proposed structures and development of the site would complement the surrounding areas and existing development pursuant to Section 5900 et. al of the Zoning Ordinance.

1.4 Project Design Features

Project design features (PDFs) have been incorporated into the Project to reduce both Air Quality and GHG emissions associated with construction, energy use, area sources, and water demand. The Project would include numerous PDFs that would reduce air quality emissions. The design features identified below are included within air quality and GHG models and shall be considered a condition for approval by the County. Furthermore, these design features would be required to be implemented by the Project.

1. Project-related construction activities would use Tier 4 with DPF construction equipment U.S EPA/ CARB -certified. The Project applicant has confirmed commitment to this feature.
2. The Project will utilize architectural coatings compliant with SDAPCD Rule 67 (SDAPCD, 2015).
3. Install high-efficiency LED street and area lighting to achieve reduction in overall lighting energy.
4. The Project will not install hearth options in the 62 residential units.
5. The Project will be designed to use 100 percent electric energy for all Project operations. Natural Gas will not be installed onsite.
6. In accordance with the California Integrated Waste Management Act (AB 939), and to be consistent with AB 341's statewide 75 percent diversion policy, the Project will seek to also achieve a 75 percent diversion goal by providing areas for storage and collection of recyclables and provide literature promoting recycling to achieve additional waste diversion.
7. Weather-based irrigation systems in common areas would be installed that would include rain sensing timers.
8. The Project applicant will be required to comply with County's Water Conservation in Landscaping Ordinance and demonstrates a 40 percent reduction in outdoor use, and will submit a Landscape Document Package to show such compliance.

9. Install low flow indoor water fixtures in all residential units which shall achieve a 20 percent reduction in flow.
10. The Project would plant 124 trees onsite.
11. Plumb and install a single Level 2 EV charging station in each of the 62 residential units.
12. Install two Level 2 EV Charging stations within the visitor parking area onsite
13. The Project will install 3 kW of photovoltaic (PV) solar for each residential unit for a total of 186 kW or 620 300-watt panels or an average of 10 panels per home.

The Project will also install PDFs geared to further reduce greenhouse gas emissions though are not quantified in either the Air Quality or GHG analysis.

- Landscaped and screened parking areas consistent with the County's Parking Design Manual, including Section 7 (Landscaping) and the "cool parking" mitigation requirements identified by CARB.
- Building efficiency features such as High-Efficiency heating, ventilation, and air conditioning (HVAC) system, tankless water heaters and low emissivity (Low E) dual pane windows.
- Incorporate into Project Covenants, Conditions, & Restrictions (CC&Rs) requirements that the Homeowner Association (HOA) coordinate with SANDAG to provide informational materials on rideshare programs such as iCommute San Diego.

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The site currently has a VR-2 Land Use Designation within the General Plan Village Regional Category. Land uses surrounding the Project mostly include single family residential. The Project is also located adjacent to the northeast side of the Joli Ann Leichtag Elementary School roughly 85 meters away. Elevations at the northwestern tip of the Project are 429 feet above mean sea level (MSL) and at the southeastern elevations are 560 feet above MSL.

2.2 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area often varies dramatically over short geographical distances with cooler temperatures on the western coast gradually warming to the east as prevailing winds from the west heat up. Most of southern California is dominated by high-pressure systems for much of the year, which keeps San Diego mostly sunny and warm. Typically, during the winter months, the high-pressure system drops to the south and brings cooler, moister weather from the north. It is common for inversion layers to develop within high-pressure areas, which mostly define pressure patterns over the SDAB. These inversions are caused when a thin layer of the atmosphere increases in temperature with height. An inversion acts like a lid preventing vertical mixing of air through convective overturning.

Meteorological trends within the area generally show daytime highs ranging between 67°F in the winter to approximately 83°F in the summer with August usually being the hottest month. Daytime Low temperatures range from approximately 44°F in the winter to approximately 62°F in the summer. Precipitation is generally about 13 inches per year (WRCC, 2016). Prevailing wind patterns for the area vary during any given month during the year and also vary depending on the time of day or night. The predominant pattern though throughout the year is usually from the west or westerly (WRCC, 2018).

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 NAAQS 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

CARB sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) is similar to the NAAQS and also restricts 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 Parts per Million (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) ⁸	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.070 ppm (137 µg/m3)		
Respirable Particulate Matter (PM10) ⁹	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		-		
Fine Particulate Matter (PM2.5) ⁹	24 Hour	No Separate State Standard		35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	12.0 µg/m3		
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		-		
Nitrogen Dioxide (NO ₂) ¹⁰	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3) ⁸	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m3)		0.100 ppm ⁸ (188/ µg/m3)		
Sulfur Dioxide (SO ₂) ¹¹	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm ¹⁰ (for Certain Areas)	-	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) ⁹
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm ¹⁰ (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		75 ppb (196 µg/m3)	-	
Lead ^{12,13}	30 Day Average	1.5 µg/m3	Atomic Absorption	-	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Quarter	-		1.5 µg/m3		
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See footnote 14				
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m3)	Gas Chromatography			
1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. 2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For 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 the U.S. EPA for further clarification and current national 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. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. 9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3. The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3, as was the annual secondary standard of 15 µg/m3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years. 10. 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. 11. 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. 12. 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. 13. 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. 14. 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, 5/4/2016)						

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. California therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed 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 the county. Therefore, the SDAPCD developed a RAQS to provide control measures to try to achieve attainment status for state ozone standards with control measures focused on Volatile Organic Compounds (VOCs) and oxides of nitrogen (NO_x). Currently, San Diego is in “non-attainment” status for federal and state O₃ and state PM₁₀ and PM_{2.5}. An attainment plan is available for O₃. The RAQS was adopted in 1992 and has been updated as recently as 2016 which was the latest update incorporating minor changes to the prior 2009 update.

The 2016 update mostly summarizes how the 2009 update has lowered NO_x and VOCs emissions which reduces ozone and clarifies and enhances emission reductions by introducing for discussion three new VOC and four new NO_x reduction measures. NO_x and VOCs are precursors to the formation of ozone in the atmosphere. 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 for criteria pollutants with respect to both federal and state nonattainment status by pollutants for County is shown in Table 2.2 on the following page (SDAPCD, 2019).

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. Projects that create more growth than projected by SANDAG may create a significant impact if the project produces unmitigable air quality emissions or if the project produces cumulative impacts.

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

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified
* The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans. ** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable. (SDAPCD, 2019)		

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 RAQS or applicable portions of the 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, NO_x and VOCs)?
- D:* Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, residential uses 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 (County of San Diego, 2007). 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 air quality impact threshold for 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 on the following page.

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 a project increase the incremental 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. EPA uses the term VOC and the 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 Air Quality models directly calculates ROG in place of VOC.

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

2.6 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 (SDAPCD, 2018). The District operates monitoring sites, which collect data on criteria pollutants. The closest monitoring location to the Project site is the Escondido monitoring location roughly 8 miles to the south-southeast. The next closest monitoring station is Camp Pendleton rough 12 miles to the northwest. Table 2.4 on the following page identifies the criteria pollutants monitored at the aforementioned station.

Table 2.4: Three-Year Ambient Air Quality Summary near the Project Site

Pollutant		Averaging Time	CAAQS	NAAQS	2015	2016	2017	Days Exceeded over 3 years
O ³ (ppm)		1 Hour	0.09 ppm	No Standard	0.09	0.08	0.09	0
		8 Hour	0.070 ppm	0.070 ppm	0.08	0.07	0.08	10
* PM ₁₀ (µg/m3)		24 Hour	50 µg/m3	150 µg/m3	30	-	-	N/A
Annual Arithmetic Mean		20 µg/m3	No Standard	19.4	-	-	N/A	
* PM _{2.5} (µg/m ³)		24 Hour	No standard -	35 µg/m3	29.4	-	-	N/A
Annual Arithmetic Mean		12 µg/m3	15 µg/m3	8.6	-	-	N/A	
NO ₂ (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.006	0.006	0.006	N/A
		1 Hour	0.18 ppm	0.100 ppm	0.060	0.072	0.063	N/A
* CO (ppm)		1 Hour	20 ppm	35 ppm	3.1	-	-	N/A
		8 Hour	9 ppm	9 ppm	2.0	-	-	N/A
Notes: 1. - Yearly maximums marked with "-" indicated data was not available for either monitoring station. 2. Days exceeded marked with "N/A" indicate no data available 3. * Data was selected from the Escondido Monitoring Station. All other data presented was collected at the Camp Pendleton Monitoring Station. 4. SO ₂ is only monitored at the El Cajon Monitoring Station. Within the entire County of San Diego, SO ₂ emissions within the County are essentially Zero for all metrics including the Average, Maximum 24 hour and 1- hour standards. The Highest 1-hr measurement identified is 0.004 ppm and the most restrictive standard (CAAQS for SO ₂) is 0.25 ppm.								

3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod 2016.3.2 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. 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.

The AERMOD 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 notable toxic air contaminant from construction is diesel exhaust, since exposure to diesel exhaust is known to cause cancer and acute and chronic health effects. Diesel exhaust emissions can be estimated using the annual PM₁₀ exhaust emissions, referred to as diesel particulate matter (DPM), from onsite construction operations obtained from the annual CalEEMod model output by summing each onsite source for the construction duration. The AERMOD input/output file for the proposed Project is provided in **Attachments B** and includes sensitive residential receptors.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 below (OEHHA, February 2015):

Equation 1

$$Dose_{air} = C_{air} * (BR/BW) * A * EF * (1 \times 10^{-6})$$

Dose _{air}	=	Dose through inhalation (mg/kg/d)
C _{air}	=	Concentration in air (µg/m ³) Annual average DPM concentration in µg/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)
BR/BW	=	Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)
1x10 ⁻⁶	=	Milligrams to micrograms conversion (10 ⁻³ mg/ µg), cubic meters to liters conversion (10 ⁻³ m ³ /l)

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors as modeled are shown within the Project models attached to this report. The worst case cancer risk calculation is defined in Equation 2 below (OEHHA, 2015):

Equation 2
$$RISK_{inh-res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

$RISK_{inh-res}$	=	Residential inhalation cancer risk
$DOSE_{air}$	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor (mg/kg-day ⁻¹)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

The California Office of Environmental Health Hazard Assessment (OEHHA) recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the Maximally Exposed Individual Resident (MEIR). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans. Exposure durations of 9-years and 70-years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the 9-and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years. Health risk calculations are shown in **Attachment C** to this report.

Non-Cancer risks or risks defined as chronic or acute are also known with respect to DPM and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist. RELs are published by the Office of Environmental Health Hazard Assessment (OEHHA, 2015). Diesel Exhaust has a REL of 5 µg/m³ and targets the respiratory system.

A graphical representation of the modeling locations is shown on a site aerial below in Figure 3-A. The red points (1-8) represent the sensitive receptor locations where air quality emissions are calculated by AERMOD which include the elementary school roughly 85 meters to the southwest and residential units adjacent to the Project. For purposes of analysis, one model was created to reflect the use of Tier 4 construction equipment with DPFs as the Project applicant has identified in the Project Description.

Figure 3-A: Construction Health Risk Model Setup



Source: (Google Earth Pro, 2020)

3.2 Construction Assumptions

The Project construction dates were estimated based on a construction start date in early 2021 with construction ending sometime early 2022. The proposed Project would include demolition of a single-family house and a garage that are roughly 2,700 SF combined though for purposes of a conservative analysis 3,000 SF was assumed. CalEEMod Version 2016.3.2 was utilized for all construction calculations and has been manually updated to reflect SDAPCD Rule 67 VOC paint standards and to include Tier 4 construction equipment per the Project description. The Project applicant has indicated that these construction PDFs and all PDFs identified in Section 1.4 would be fully utilized and is fully committed to them. Table 3.1 shows the expected timeframes for the construction of all Project infrastructure, facilities, and improvements at the site, as well as the expected number of pieces of equipment which have been verified by the applicant's Project Engineer.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Demolition	1/1/2021	1/28/2021	
Excavators			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			1
Site Preparation	1/29/2021	2/4/2021	
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			1
Grading	2/5/2021	2/16/2021	
Excavators			1
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			3
Building Construction	2/17/2021	1/4/2022	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Paving	1/5/2022	1/28/2022	
Pavers			2
Paving Equipment			2
Rollers			2
Architectural Coating	1/29/2022	2/23/2022	
Air Compressors			1
This equipment and durations were selected based on Project applicant inputs.			

It should be noted that in the event that construction begins and ends at a later date than identified in Table 3.1, the analysis would be conservative. Due to the phase-out of older construction equipment and vehicle fleets, along with more stringent regulatory factors, construction and vehicle emissions may decrease in future years.

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, waste and water uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of routine maintenance. It is assumed that the Project would require an average of 10 percent of structural surface area architectural re-coating each year. Electrical sources will only be incorporated for energy use.

Finally, the Project would also generate emissions through the use of vehicles for transportation. The Project was estimated to generate 496 Average Daily Trips (ADT) as identified within the Project traffic study (LLG, 2019). These daily trips were utilized within the CalEEMod analysis using a trip distance of 6.14 miles which was added manually to the model using a 100 percent primary trip breakdown. The CalEEMod operational model is also shown in ***Attachment A***.

3.4 Micro Scale Carbon Monoxide Operational Emissions

Air pollutant emissions related to Project traffic have the potential to create new, or worsen existing localized air quality violations with respect to carbon monoxide (CO). These increased carbon monoxide "Hot Spots" are determined through the utilization of the Institute of Transportation Studies (ITS) Transportation Project-Level Carbon Monoxide Protocol (University of California, Davis, 1997). In the event the proposed Project traffic adds vehicular trips to either an intersection that operates at Level of Service (LOS) E or F or the additional Project trips re-classify the intersection from an acceptable LOS to LOS E or F, and when total intersection peak-hour trips exceed 3,000 vehicles, the Project must conduct a CO "Hot Spot" analysis (County of San Diego, 2007).

The Project traffic study reported that the proposed Project would not add vehicular trips to an intersection at LOS E or F or result in peak-hour trips exceeding 3,000 peak hour trips. Therefore, no CO Hot Spot impacts are expected and are not further analyzed.

3.5 Odor Impacts (Onsite)

Potential onsite odor generators would include short-term construction odors from activities such as paving and painting. Odors created during short-term construction activities would most likely be from the bitumen and solvents from the placement of hot asphalt and architectural coating. Paving activities are fairly quick and would cause less than significant impacts. The proposed Project is residential in nature which would not generate operational odors. Therefore, a less than significant odor impact is expected and is not further analyzed.

4.0 FINDINGS

4.1 Construction Findings

Construction emissions in pounds per day from the construction activities and equipment identified in Section 3.2 above is shown in Table 4.1 below. Based on these numbers, the Project would not exceed County standards at sensitive receptor locations or anywhere around the Project site and would not require mitigation to comply. It should be noted that as a design feature, the Project construction team will utilize Tier 4 construction diesel equipment with DPFs, as indicated by the applicant, and architectural coatings would have low VOC per the requirements of SDAPCD Rule 67.

Table 4.1: Construction Emissions Summary – Pounds per Day (Tier IV & DPFs)

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)
2021	0.505	3.049	18.836	0.033	6.912	0.010	6.915	3.413	0.010	3.416
2022	43.165	3.001	18.742	0.032	0.417	0.010	0.427	0.112	0.010	0.121
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
SDAPCD Impact?	No	No	No	No	-	-	No	-	-	No

4.2 Health Risk

As discussed in Section 3.2 above, the proposed Project will utilize Tier 4 construction equipment with DPFs as a PDF. Based upon the air quality modeling, worst-case PM₁₀ from exhaust would cumulatively produce 0.00083 tons over the construction duration (412-days) or an average of 2.08x10⁻⁵ grams/second. The average emission rate over the grading area is 1.05x10⁻⁹ g/m²/s, which was calculated as follows:

$$\frac{2.08 * 10^{-5} \frac{\text{grams}}{\text{second}}}{4.89 \text{ acres} * 4,046 \frac{\text{meters}^2}{\text{acre}}} = 1.05 * 10^{-9} \frac{\text{grams}}{\text{meters}^2 \text{ second}}$$

Utilizing the AERMOD dispersion model, we find that the worst-case annual concentration at any of the sensitive receptors is 0.01 µg/m³ during construction which is noted to an adjacent residential site adjacent to the Project to the south. The risk equation identified above in Section 3.1, calculated the inhalation cancer risk for the closest residential receptor to be 2.21

per one million exposed which would be considered a less than significant impact assuming T-BACT equipment is utilized. Tier 4 equipment is considered T-BACT. Additionally, there is a nearby school to the north of the site. The estimated concentrations at this site are 0.006 $\mu\text{g}/\text{m}^3$ which is less than the worst case receptor of 0.01 $\mu\text{g}/\text{m}^3$ and would therefore have a risk less than 2.21 per one million exposed and by default would have a less than significant impact with the Tier 4 equipment being used.

There are known acute and chronic health risks associated with diesel exhaust which are considered non-cancer risks. These risks are calculated based on methods identified in Section 3.1 of this report. From this we find that the annual concentration of 0.01 $\mu\text{g}/\text{m}^3$ divided by the Chronic REL of 5 $\mu\text{g}/\text{m}^3$ yields a Health Hazard Index of 0.002, which is less than one which is the standard for non-cancer risks. Therefore, no non-cancer risks are expected and all health risks are considered less than significant.

4.3 Operational Findings

Project buildout and full operations are expected in 2022. The traffic generation results from the Project traffic study (LLG, 2019) was utilized within CalEEMod 2016.3.2. The model was run for the winter and summer scenarios to determine operational impacts for the buildout year of full operations. The expected daily pollutant generation can be calculated utilizing the product of the average daily miles traveled and the expected emissions inventory calculated by EMFAC2014; CALEEMOD 2016.3.2 performs this calculation. The daily pollutants calculated for summer and winter are shown in Tables 4.2 and 4.3. Based upon these calculations, the proposed Project would not exceed SDAPCD operational air quality significance thresholds and would not be required to implement specific mitigation measures to comply with CEQA and SDAPCD thresholds. However, it should be noted, that PDFs 1-13 identified in Section 1.4 of this report have been utilized within the CalEEMod models for both Air Quality and Greenhouse Gas reports and would therefore be conditions of approval by the County.

Table 4.2: Expected Summer Daily Pollutant Generation

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	1.694	0.059	5.116	0.000	0.028	0.028
Energy	0.000	0.000	0.000	0.000	0.000	0.000
Mobile	0.664	2.341	6.802	0.024	2.105	0.575
Total (Unmitigated)	2.358	2.400	11.918	0.024	2.133	0.603
SDAPCD Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes 6.14 mile trip distances per Project Traffic Study The final numbers are reported as rounded numbers.						

Table 4.3: Expected Winter Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
Area	1.694	0.059	5.116	0.000	0.028	0.028
Energy	0.000	0.000	0.000	0.000	0.000	0.000
Mobile	0.642	2.394	6.796	0.023	2.105	0.575
Total (Unmitigated)	2.335	2.453	11.912	0.023	2.134	0.603
SDAPCD Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes 6.14 mile trip distances per Project Traffic study The final numbers are reported as rounded numbers.						

4.4 Cumulative Impact Findings

Cumulative impacts would exist when either there are direct air quality impacts or when multiple construction projects occur within 1/2 mile radius of the project site simultaneously. To illustrate this, if a Project was to produce air quality emissions simultaneous to a nearby construction project the addition of both project emissions to the environment could exceed significance thresholds. If a nearby Project was to be under construction at the same time, that Project would need to produce an additive amount of emissions close to the Project site such that emissions would exceed thresholds.

The Project applicant conducted research into whether or not nearby cumulative construction projects are expected around the project. From that research it was determined that zero cumulatively considerable projects exist within a 1/2 mile radius from the project site. Based on this a cumulative construction impact would be less than significant. The County has verified that this is accurate around the Project area.

The RAQS is updated regularly with the last update being completed in 2016. Per the 2016 RAQS, the largest contributors to air quality emissions are motor vehicles. The RAQS is largely based on SANDAG's population predictions which are developed based on the County's General Plan land use patterns. Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS. Projects that create more growth than projected by SANDAG may create a significant impact if the Project produces unmitigable air quality emissions or if the Project produces cumulative impacts.

The proposed Project is an infill project which will provide needed housing within the cities of San Marcos and Vista. Based on the project traffic study, the average trip distance is 6.14 miles which is lower than a typical development based on statewide averages. This lower trip distance is attributed to the complementary uses (i.e., commercial, retail, and employment

uses) in the project vicinity. The project's average trip length would support the reduction of regional air quality emissions by reducing average trip lengths in the County since motor vehicles are the primary contributor to air emissions in the County.

Additionally, based on the Regional Housing Needs Assessment (RHNA) for the County shows growth projections of 22,412 homes between the years of 2010 and 2020 and an additional 72,976 homes between 2020 and 2035 and an additional 28,837 homes from 2035 and 2050, the additional 53 homes would be represented given these projections are conservative. Also, as of 2017, the County has only constructed and permitted only 8,082 homes based on the RHNA fact sheet prepared by SANDAG (SANDAG, 2018).

The proposed project has a land use designation of VR-2 and the proposed Project seeks to re-designate the land use to VR-15. Given this, the proposed Project was not included in the underlying growth estimates for the SDAB and would not have been directly considered in the last 2016 RAQS. This added density can however be seen as a regional benefit since the project would be close to both the City of Vista and the City of San Marcos. This increase housing density in the County would be closer to the City Center as opposed to the more rural areas more typical of County developments. Additionally, the added housing would also be consistent with RHNA population projections. However, because the project is proposing a land use change that would increase the number of dwelling units allowed on-site, the project was not accounted for in RAQS and would result in growth beyond what was assumed in the regional projections. This additional growth would be a potentially significant impact that would be mitigated through AQ-1.

Mitigation AQ-1: Upon approval of the project and prior to the issuance of grading permits, the County shall provide a revised housing and population forecasts to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

4.5 Conclusion of Findings

Based upon the analysis of construction and operation activities, the proposed Project would generate less than significant direct construction and direct operational impacts.

As a condition of approval, the proposed Project would utilize Tier 4 diesel equipment with DPF. Diesel particulate matter from the Project was not found to increase cancer risks greater than 10 per million exposed with the application of T-BACT. Since Tier 4 equipment with DPF is considered T-BACT equipment a less than significant cancer health risk impact is expected.

The Project would require a GPA to amend the GP Land Use Designation from VR-2 to VR-15. The Project seeks to build 62 multi-family units on the site currently zoned for 9 single family homes under the GP buildout scenario. Given this, the Project would add 53 additional residential units then that GP would currently allow. Based on this the proposed Project is a higher density Project than currently allowed. however SANDAG's growth projection show that single family houses will grow from approximately 510,768 in 2020 to 583,744 in 2035 and up to 612,581 in 2050 (SANDAG, 2019) and according to the RHNA, the County is behind in home construction as projected in 2018.

The proposed project has a land use designation of VR-2 and the proposed Project seeks to re-designate the land use to VR-15. Given this, the proposed Project was not included in the underlying growth estimates for the SDAB and would not have been directly considered in the last 2016 RAQS. Though the proposed project would result in the development of housing in a more urbanized area than typical developments in the County, this impact would be potential significant because the growth was not accounted for at the regional level. This potential impact would be fully mitigated through mitigation AQ-1.

Mitigation AQ-1: Upon approval of the project and prior to the issuance of grading permits, the County shall provide a revised housing and population forecasts to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

The applicant has agreed to implement all of the following PDFs which have been included for both Air Quality and GHG reductions and have been included in both AQ and GHG modeling. Based on this, all PDFs would be conditions of approval for this project

1. Project-related construction activities would use Tier 4 with DPF construction equipment U.S. EPA/ CARB -certified. The Project applicant has confirmed commitment to this feature.
2. The Project will utilize architectural coatings compliant with SDAPCD Rule 67 (SDAPCD, 2015).
3. Install high-efficiency LED street and area lighting to achieve reduction in overall lighting energy.
4. The Project will not install hearth options in the 62 residential units.
5. The Project will be designed to use 100 percent electric energy for all Project operations. Natural Gas will not be installed onsite.
6. In accordance with the California Integrated Waste Management Act (AB 939), and to be consistent with AB 341's statewide 75 percent diversion policy, the Project will seek to also achieve a 75 percent diversion goal by providing areas for storage and

collection of recyclables and provide literature promoting recycling to achieve additional waste diversion.

7. Weather-based irrigation systems in common areas would be installed that would include rain sensing timers.
8. The Project applicant will be required to comply with County's Water Conservation in Landscaping Ordinance and demonstrates a 40 percent reduction in outdoor use, and will submit a Landscape Document Package to show such compliance.
9. Install low flow indoor water fixtures in all residential units which shall achieve a 20 percent reduction in flow.
10. The Project would plant 124 trees onsite.
11. Plumb and install a single Level 2 EV charging station in each of the 62 residential units.
12. Install two Level 2 EV Charging stations within the visitor parking area onsite
13. The Project will install 3 kW of photovoltaic (PV) solar for each residential unit for a total of 186 kW or 620 300-watt panels or an average of 10 panels per home.

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 residential 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.



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Date June 9, 2020

ATTACHMENT A

CalEEMod

Smilax Property - San Diego County, Summer

Smilax Property

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	62.00	Dwelling Unit	4.89	62,000.00	177

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	498.31	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2023 Full Operations Expected

Land Use - 4.89 ac site

Construction Phase - Construction Sch. (CS)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - CS

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction Equip. (CE)

Trips and VMT -

Smilax Property - San Diego County, Summer

Demolition -

Grading - CE

Architectural Coating - Rule 67 paint

Vehicle Trips - Per Traffic Engineer and 8 trips per unit and 6.14 average trips dist.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No Fireplaces

Area Coating - Rule 67 Paint

Energy Use - Project is all electric no natural gas required

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

Smilax Property - San Diego County, Summer

[illegible]

Smilax Property - San Diego County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	T24NG	10,202.85	0.00
tblFireplaces	NumberGas	34.10	0.00
tblFireplaces	NumberNoFireplace	6.20	0.00
tblFireplaces	NumberWood	21.70	0.00
tblGrading	AcresOfGrading	0.00	4.00
tblLandUse	LotAcreage	3.88	4.89
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	498.31
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblSequestration	NumberOfNewTrees	0.00	124.00
tblVehicleTrips	HO_TL	7.50	6.14
tblVehicleTrips	HO_TTP	39.60	40.00
tblVehicleTrips	HS_TL	7.30	6.14
tblVehicleTrips	HS_TTP	18.80	18.00
tblVehicleTrips	HW_TL	10.80	6.14
tblVehicleTrips	HW_TTP	41.60	42.00

Smilax Property - San Diego County, Summer

tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	WD_TR	5.81	8.00
tblWoodstoves	NumberCatalytic	3.10	0.00
tblWoodstoves	NumberNoncatalytic	3.10	0.00

2.0 Emissions Summary

Smilax Property - San Diego County, Summer

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					
2021	2.3422	24.7704	17.9504	0.0325	6.9116	1.1608	7.8363	3.4127	1.0679	4.4681	0.0000	3,123.808 7	3,123.808 7	0.9323	0.0000	3,139.834 8
2022	43.3395	16.3815	17.6453	0.0323	0.4171	0.8128	1.2299	0.1117	0.7647	0.8764	0.0000	3,109.415 1	3,109.415 1	0.6357	0.0000	3,125.306 6
Maximum	43.3395	24.7704	17.9504	0.0325	6.9116	1.1608	7.8363	3.4127	1.0679	4.4681	0.0000	3,123.808 7	3,123.808 7	0.9323	0.0000	3,139.834 8

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					
2021	0.5046	3.0486	18.8355	0.0325	6.9116	0.0102	6.9147	3.4127	9.9000e-003	3.4158	0.0000	3,123.808 7	3,123.808 7	0.9323	0.0000	3,139.834 8
2022	43.1646	3.0006	18.7422	0.0323	0.4171	9.9000e-003	0.4270	0.1117	9.6500e-003	0.1213	0.0000	3,109.415 1	3,109.415 1	0.6357	0.0000	3,125.306 6
Maximum	43.1646	3.0486	18.8355	0.0325	6.9116	0.0102	6.9147	3.4127	9.9000e-003	3.4158	0.0000	3,123.808 7	3,123.808 7	0.9323	0.0000	3,139.834 8

	ROG	NOx	CO	SO2	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	4.41	85.30	-5.57	0.00	0.00	98.98	19.02	0.00	98.93	33.82	0.00	0.00	0.00	0.00	0.00	0.00

Smilax Property - San Diego County, Summer

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	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6644	2.3409	6.8016	0.0237	2.0871	0.0180	2.1051	0.5578	0.0167	0.5745		2,417.5978	2,417.5978	0.1223		2,420.6562
Total	2.3579	2.3999	11.9178	0.0240	2.0871	0.0463	2.1334	0.5578	0.0450	0.6028	0.0000	2,426.8080	2,426.8080	0.1312	0.0000	2,430.0879

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6644	2.3409	6.8016	0.0237	2.0871	0.0180	2.1051	0.5578	0.0167	0.5745		2,417.5978	2,417.5978	0.1223		2,420.6562
Total	2.3579	2.3999	11.9178	0.0240	2.0871	0.0463	2.1334	0.5578	0.0450	0.6028	0.0000	2,426.8080	2,426.8080	0.1312	0.0000	2,430.0879

Smilax Property - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/4/2021	5	5	
3	Grading	Grading	2/5/2021	2/16/2021	5	8	
4	Building Construction	Building Construction	2/17/2021	1/4/2022	5	230	
5	Paving	Paving	1/5/2022	1/28/2022	5	18	
6	Architectural Coating	Architectural Coating	1/29/2022	2/23/2022	5	18	

Acres of Grading (Site Preparation Phase): 4

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 125,550; Residential Outdoor: 41,850; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0
(Architectural Coating – sqft)

OffRoad Equipment

Smilax Property - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
demolition	Excavators	1	8.00	158	0.38
demolition	Rubber Tired Dozers	1	8.00	247	0.40
demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Smilax Property - San Diego County, Summer

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	3	8.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	45.00	7.00	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	9.00	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

Use DPF for Construction Equipment

3.2 demolition - 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					
Fugitive Dust					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	1.4628	15.0205	9.5698	0.0168		0.7487	0.7487		0.6888	0.6888		1,628.444 2	1,628.444 2	0.5267		1,641.6110
Total	1.4628	15.0205	9.5698	0.0168	0.1495	0.7487	0.8982	0.0226	0.6888	0.7114		1,628.444 2	1,628.444 2	0.5267		1,641.611 0

Smilax Property - San Diego County, Summer

3.2 demolition - 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	5.2000e-003	0.1794	0.0439	5.4000e-004	0.0122	5.5000e-004	0.0128	3.3500e-003	5.2000e-004	3.8800e-003		59.1976	59.1976	5.2300e-003		59.3284
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	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	0.0329	0.1974	0.2561	1.1900e-003	0.0780	1.0000e-003	0.0790	0.0208	9.4000e-004	0.0217		124.3529	124.3529	7.0900e-003		124.5301

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					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	0.2061	0.8930	10.0937	0.0168		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1,628.4442	1,628.4442	0.5267		1,641.6110
Total	0.2061	0.8930	10.0937	0.0168	0.1495	4.1200e-003	0.1536	0.0226	4.1200e-003	0.0268	0.0000	1,628.4442	1,628.4442	0.5267		1,641.6110

Smilax Property - San Diego County, Summer

3.2 demolition - 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	5.2000e-003	0.1794	0.0439	5.4000e-004	0.0122	5.5000e-004	0.0128	3.3500e-003	5.2000e-004	3.8800e-003		59.1976	59.1976	5.2300e-003		59.3284
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	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	0.0329	0.1974	0.2561	1.1900e-003	0.0780	1.0000e-003	0.0790	0.0208	9.4000e-004	0.0217		124.3529	124.3529	7.0900e-003		124.5301

3.3 Site Preparation - 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					
Fugitive Dust					6.8705	0.0000	6.8705	3.4018	0.0000	3.4018			0.0000			0.0000
Off-Road	1.2336	12.8671	6.2980	0.0116		0.6442	0.6442		0.5927	0.5927		1,128.2523	1,128.2523	0.3649		1,137.3748
Total	1.2336	12.8671	6.2980	0.0116	6.8705	0.6442	7.5147	3.4018	0.5927	3.9945		1,128.2523	1,128.2523	0.3649		1,137.3748

Smilax Property - San Diego County, Summer

3.3 Site Preparation - 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	0.0173	0.0112	0.1326	4.1000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		40.7220	40.7220	1.1600e-003		40.7511
Total	0.0173	0.0112	0.1326	4.1000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		40.7220	40.7220	1.1600e-003		40.7511

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					6.8705	0.0000	6.8705	3.4018	0.0000	3.4018			0.0000			0.0000
Off-Road	0.1425	0.6176	6.1756	0.0116		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	1,128.2523	1,128.2523	0.3649		1,137.3748
Total	0.1425	0.6176	6.1756	0.0116	6.8705	2.8500e-003	6.8733	3.4018	2.8500e-003	3.4047	0.0000	1,128.2523	1,128.2523	0.3649		1,137.3748

Smilax Property - San Diego County, Summer

3.3 Site Preparation - 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	0.0173	0.0112	0.1326	4.1000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		40.7220	40.7220	1.1600e-003		40.7511
Total	0.0173	0.0112	0.1326	4.1000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		40.7220	40.7220	1.1600e-003		40.7511

3.4 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895,1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.9285	2,871.9285	0.9288		2,895,1495

Smilax Property - San Diego County, Summer

3.4 Grading - 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	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
Total	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	0.3632	1.5737	17.7527	0.0296	6.5523	7.2600e-003	6.5596	3.3675	7.2600e-003	3.3747	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

Smilax Property - San Diego County, Summer

3.4 Grading - 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	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
Total	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533

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

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

Smilax Property - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0212	0.7128	0.1817	1.9000e-003	0.0474	1.5000e-003	0.0489	0.0136	1.4300e-003	0.0151		203.9464	203.9464	0.0146		204.3107
Worker	0.1557	0.1011	1.1936	3.6800e-003	0.3697	2.5500e-003	0.3722	0.0981	2.3500e-003	0.1004		366.4984	366.4984	0.0105		366.7599
Total	0.1768	0.8139	1.3752	5.5800e-003	0.4171	4.0500e-003	0.4211	0.1117	3.7800e-003	0.1155		570.4448	570.4448	0.0250		571.0706

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	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Smilax Property - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0212	0.7128	0.1817	1.9000e-003	0.0474	1.5000e-003	0.0489	0.0136	1.4300e-003	0.0151		203.9464	203.9464	0.0146		204.3107
Worker	0.1557	0.1011	1.1936	3.6800e-003	0.3697	2.5500e-003	0.3722	0.0981	2.3500e-003	0.1004		366.4984	366.4984	0.0105		366.7599
Total	0.1768	0.8139	1.3752	5.5800e-003	0.4171	4.0500e-003	0.4211	0.1117	3.7800e-003	0.1155		570.4448	570.4448	0.0250		571.0706

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Smilax Property - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0197	0.6736	0.1720	1.8700e-003	0.0474	1.2900e-003	0.0487	0.0136	1.2300e-003	0.0149		202.0296	202.0296	0.0141		202.3828
Worker	0.1472	0.0922	1.1099	3.5400e-003	0.3697	2.5000e-003	0.3722	0.0981	2.3000e-003	0.1004		353.0519	353.0519	9.5900e-003		353.2916
Total	0.1668	0.7658	1.2819	5.4100e-003	0.4171	3.7900e-003	0.4208	0.1117	3.5300e-003	0.1152		555.0815	555.0815	0.0237		555.6744

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	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Smilax Property - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0197	0.6736	0.1720	1.8700e-003	0.0474	1.2900e-003	0.0487	0.0136	1.2300e-003	0.0149		202.0296	202.0296	0.0141		202.3828
Worker	0.1472	0.0922	1.1099	3.5400e-003	0.3697	2.5000e-003	0.3722	0.0981	2.3000e-003	0.1004		353.0519	353.0519	9.5900e-003		353.2916
Total	0.1668	0.7658	1.2819	5.4100e-003	0.4171	3.7900e-003	0.4208	0.1117	3.5300e-003	0.1152		555.0815	555.0815	0.0237		555.6744

3.6 Paving - 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	0.7237	7.2942	9.4934	0.0148		0.3761	0.3761		0.3460	0.3460		1,428.1163	1,428.1163	0.4619		1,439.6633
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7237	7.2942	9.4934	0.0148		0.3761	0.3761		0.3460	0.3460		1,428.1163	1,428.1163	0.4619		1,439.6633

Smilax Property - San Diego County, Summer

3.6 Paving - 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	0.0425	0.0266	0.3206	1.0200e-003	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		101.9928	101.9928	2.7700e-003		102.0620
Total	0.0425	0.0266	0.3206	1.0200e-003	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		101.9928	101.9928	2.7700e-003		102.0620

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	0.1815	0.7863	11.1902	0.0148		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003	0.0000	1,428.1163	1,428.1163	0.4619		1,439.6633
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.1815	0.7863	11.1902	0.0148		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003	0.0000	1,428.1163	1,428.1163	0.4619		1,439.6633

Smilax Property - San Diego County, Summer

3.6 Paving - 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	0.0425	0.0266	0.3206	1.0200e-003	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		101.9928	101.9928	2.7700e-003		102.0620
Total	0.0425	0.0266	0.3206	1.0200e-003	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		101.9928	101.9928	2.7700e-003		102.0620

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.1055					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		281.9062
Total	43.3100	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Smilax Property - San Diego County, Summer

3.7 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0184	0.2220	7.1000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		70.6104	70.6104	1.9200e-003		70.6583
Total	0.0294	0.0184	0.2220	7.1000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		70.6104	70.6104	1.9200e-003		70.6583

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	43.1055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0183		281.9062
Total	43.1352	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0183		281.9062

Smilax Property - San Diego County, Summer

3.7 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0184	0.2220	7.1000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		70.6104	70.6104	1.9200e-003		70.6583
Total	0.0294	0.0184	0.2220	7.1000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		70.6104	70.6104	1.9200e-003		70.6583

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Smilax Property - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6644	2.3409	6.8016	0.0237	2.0871	0.0180	2.1051	0.5578	0.0167	0.5745		2,417.5978	2,417.5978	0.1223		2,420.6562
Unmitigated	0.6644	2.3409	6.8016	0.0237	2.0871	0.0180	2.1051	0.5578	0.0167	0.5745		2,417.5978	2,417.5978	0.1223		2,420.6562

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	496.00	496.00	496.00	984,371	984,371
Total	496.00	496.00	496.00	984,371	984,371

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
Condo/Townhouse	6.14	6.14	6.14	42.00	18.00	40.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

5.0 Energy Detail

 Historical Energy Use: N

Smilax Property - San Diego County, Summer

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Smilax Property - San Diego County, Summer

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	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317
Unmitigated	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317

Smilax Property - San Diego County, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3268					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1541	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283		9.2102	9.2102	8.8600e-003		9.4317
Total	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317

Smilax Property - San Diego County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3268					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1541	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283		9.2102	9.2102	8.8600e-003		9.4317
Total	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317

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

Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Smilax Property - San Diego County, Summer

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Smilax Property - San Diego County, Winter

Smilax Property

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	62.00	Dwelling Unit	4.89	62,000.00	177

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	498.31	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2023 Full Operations Expected

Land Use - 4.89 ac site

Construction Phase - Construction Sch. (CS)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - CS

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction Equip. (CE)

Trips and VMT -

Smilax Property - San Diego County, Winter

Demolition -

Grading - CE

Architectural Coating - Rule 67 paint

Vehicle Trips - Per Traffic Engineer and 8 trips per unit and 6.14 average trips dist.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No Fireplaces

Area Coating - Rule 67 Paint

Energy Use - Project is all electric no natural gas required

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

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[illegible]

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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	T24NG	10,202.85	0.00
tblFireplaces	NumberGas	34.10	0.00
tblFireplaces	NumberNoFireplace	6.20	0.00
tblFireplaces	NumberWood	21.70	0.00
tblGrading	AcresOfGrading	0.00	4.00
tblLandUse	LotAcreage	3.88	4.89
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	498.31
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblSequestration	NumberOfNewTrees	0.00	124.00
tblVehicleTrips	HO_TL	7.50	6.14
tblVehicleTrips	HO_TTP	39.60	40.00
tblVehicleTrips	HS_TL	7.30	6.14
tblVehicleTrips	HS_TTP	18.80	18.00
tblVehicleTrips	HW_TL	10.80	6.14
tblVehicleTrips	HW_TTP	41.60	42.00

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tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	WD_TR	5.81	8.00
tblWoodstoves	NumberCatalytic	3.10	0.00
tblWoodstoves	NumberNoncatalytic	3.10	0.00

2.0 Emissions Summary

Smilax Property - San Diego County, Winter

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					
2021	2.3492	24.7745	17.8994	0.0322	6.9116	1.1608	7.8363	3.4127	1.0679	4.4681	0.0000	3,096.083 8	3,096.083 8	0.9321	0.0000	3,112.118 2
2022	43.3435	16.3905	17.5960	0.0321	0.4171	0.8129	1.2299	0.1117	0.7647	0.8764	0.0000	3,082.541 9	3,082.541 9	0.6360	0.0000	3,098.441 4
Maximum	43.3435	24.7745	17.8994	0.0322	6.9116	1.1608	7.8363	3.4127	1.0679	4.4681	0.0000	3,096.083 8	3,096.083 8	0.9321	0.0000	3,112.118 2

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					
2021	0.5266	3.0591	18.7845	0.0322	6.9116	0.0102	6.9147	3.4127	9.9600e-003	3.4158	0.0000	3,096.083 8	3,096.083 8	0.9321	0.0000	3,112.1182
2022	43.1687	3.0095	18.6928	0.0321	0.4171	9.9600e-003	0.4270	0.1117	9.7000e-003	0.1214	0.0000	3,082.541 9	3,082.541 9	0.6360	0.0000	3,098.441 4
Maximum	43.1687	3.0591	18.7845	0.0322	6.9116	0.0102	6.9147	3.4127	9.9600e-003	3.4158	0.0000	3,096.083 8	3,096.083 8	0.9321	0.0000	3,112.118 2

	ROG	NOx	CO	SO2	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	4.37	85.26	-5.58	0.00	0.00	98.98	19.02	0.00	98.93	33.82	0.00	0.00	0.00	0.00	0.00	0.00

Smilax Property - San Diego County, Winter

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	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6418	2.3939	6.7961	0.0225	2.0871	0.0181	2.1052	0.5578	0.0168	0.5746		2,291.8699	2,291.8699	0.1238		2,294.9650
Total	2.3353	2.4529	11.9123	0.0228	2.0871	0.0464	2.1335	0.5578	0.0452	0.6029	0.0000	2,301.0801	2,301.0801	0.1327	0.0000	2,304.3966

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6418	2.3939	6.7961	0.0225	2.0871	0.0181	2.1052	0.5578	0.0168	0.5746		2,291.8699	2,291.8699	0.1238		2,294.9650
Total	2.3353	2.4529	11.9123	0.0228	2.0871	0.0464	2.1335	0.5578	0.0452	0.6029	0.0000	2,301.0801	2,301.0801	0.1327	0.0000	2,304.3966

Smilax Property - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/4/2021	5	5	
3	Grading	Grading	2/5/2021	2/16/2021	5	8	
4	Building Construction	Building Construction	2/17/2021	1/4/2022	5	230	
5	Paving	Paving	1/5/2022	1/28/2022	5	18	
6	Architectural Coating	Architectural Coating	1/29/2022	2/23/2022	5	18	

Acres of Grading (Site Preparation Phase): 4

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 125,550; Residential Outdoor: 41,850; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0
(Architectural Coating – sqft)

OffRoad Equipment

Smilax Property - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
demolition	Excavators	1	8.00	158	0.38
demolition	Rubber Tired Dozers	1	8.00	247	0.40
demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Smilax Property - San Diego County, Winter

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	3	8.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	45.00	7.00	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	9.00	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

Use DPF for Construction Equipment

3.2 demolition - 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					
Fugitive Dust					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	1.4628	15.0205	9.5698	0.0168		0.7487	0.7487		0.6888	0.6888		1,628.444 2	1,628.444 2	0.5267		1,641.6110
Total	1.4628	15.0205	9.5698	0.0168	0.1495	0.7487	0.8982	0.0226	0.6888	0.7114		1,628.444 2	1,628.444 2	0.5267		1,641.611 0

Smilax Property - San Diego County, Winter

3.2 demolition - 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	5.3400e-003	0.1810	0.0467	5.3000e-004	0.0122	5.6000e-004	0.0128	3.3500e-003	5.3000e-004	3.8900e-003		58.1749	58.1749	5.4000e-003		58.3099
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	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	0.0367	0.2012	0.2461	1.1400e-003	0.0780	1.0100e-003	0.0790	0.0208	9.5000e-004	0.0217		119.3387	119.3387	7.1600e-003		119.5176

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					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	0.2061	0.8930	10.0937	0.0168		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1,628.4442	1,628.4442	0.5267		1,641.6110
Total	0.2061	0.8930	10.0937	0.0168	0.1495	4.1200e-003	0.1536	0.0226	4.1200e-003	0.0268	0.0000	1,628.4442	1,628.4442	0.5267		1,641.6110

Smilax Property - San Diego County, Winter

3.2 demolition - 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	5.3400e-003	0.1810	0.0467	5.3000e-004	0.0122	5.6000e-004	0.0128	3.3500e-003	5.3000e-004	3.8900e-003		58.1749	58.1749	5.4000e-003		58.3099
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	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	0.0367	0.2012	0.2461	1.1400e-003	0.0780	1.0100e-003	0.0790	0.0208	9.5000e-004	0.0217		119.3387	119.3387	7.1600e-003		119.5176

3.3 Site Preparation - 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					
Fugitive Dust					6.8705	0.0000	6.8705	3.4018	0.0000	3.4018			0.0000			0.0000
Off-Road	1.2336	12.8671	6.2980	0.0116		0.6442	0.6442		0.5927	0.5927		1,128.2523	1,128.2523	0.3649		1,137.3748
Total	1.2336	12.8671	6.2980	0.0116	6.8705	0.6442	7.5147	3.4018	0.5927	3.9945		1,128.2523	1,128.2523	0.3649		1,137.3748

Smilax Property - San Diego County, Winter

3.3 Site Preparation - 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	0.0196	0.0126	0.1247	3.8000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		38.2274	38.2274	1.1000e-003		38.2548
Total	0.0196	0.0126	0.1247	3.8000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		38.2274	38.2274	1.1000e-003		38.2548

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					6.8705	0.0000	6.8705	3.4018	0.0000	3.4018			0.0000			0.0000
Off-Road	0.1425	0.6176	6.1756	0.0116		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	1,128.2523	1,128.2523	0.3649		1,137.3748
Total	0.1425	0.6176	6.1756	0.0116	6.8705	2.8500e-003	6.8733	3.4018	2.8500e-003	3.4047	0.0000	1,128.2523	1,128.2523	0.3649		1,137.3748

Smilax Property - San Diego County, Winter

3.3 Site Preparation - 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	0.0196	0.0126	0.1247	3.8000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		38.2274	38.2274	1.1000e-003		38.2548
Total	0.0196	0.0126	0.1247	3.8000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		38.2274	38.2274	1.1000e-003		38.2548

3.4 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895,1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.9285	2,871.9285	0.9288		2,895,1495

Smilax Property - San Diego County, Winter

3.4 Grading - 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	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	0.3632	1.5737	17.7527	0.0296	6.5523	7.2600e-003	6.5596	3.3675	7.2600e-003	3.3747	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

Smilax Property - San Diego County, Winter

3.4 Grading - 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	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645

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

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

Smilax Property - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0223	0.7109	0.2023	1.8500e-003	0.0474	1.5600e-003	0.0489	0.0136	1.4900e-003	0.0151		198.6735	198.6735	0.0155		199.0604
Worker	0.1765	0.1135	1.1220	3.4500e-003	0.3697	2.5500e-003	0.3722	0.0981	2.3500e-003	0.1004		344.0464	344.0464	9.8800e-003		344.2935
Total	0.1988	0.8244	1.3242	5.3000e-003	0.4171	4.1100e-003	0.4212	0.1117	3.8400e-003	0.1155		542.7199	542.7199	0.0254		543.3540

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	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Smilax Property - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0223	0.7109	0.2023	1.8500e-003	0.0474	1.5600e-003	0.0489	0.0136	1.4900e-003	0.0151		198.6735	198.6735	0.0155		199.0604
Worker	0.1765	0.1135	1.1220	3.4500e-003	0.3697	2.5500e-003	0.3722	0.0981	2.3500e-003	0.1004		344.0464	344.0464	9.8800e-003		344.2935
Total	0.1988	0.8244	1.3242	5.3000e-003	0.4171	4.1100e-003	0.4212	0.1117	3.8400e-003	0.1155		542.7199	542.7199	0.0254		543.3540

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Smilax Property - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0208	0.6714	0.1915	1.8300e-003	0.0474	1.3400e-003	0.0487	0.0136	1.2800e-003	0.0149		196.7718	196.7718	0.0150		197.1464
Worker	0.1673	0.1035	1.0411	3.3300e-003	0.3697	2.5000e-003	0.3722	0.0981	2.3000e-003	0.1004		331.4365	331.4365	9.0500e-003		331.6628
Total	0.1880	0.7748	1.2326	5.1600e-003	0.4171	3.8400e-003	0.4209	0.1117	3.5800e-003	0.1153		528.2083	528.2083	0.0240		528.8092

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	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Smilax Property - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0208	0.6714	0.1915	1.8300e-003	0.0474	1.3400e-003	0.0487	0.0136	1.2800e-003	0.0149		196.7718	196.7718	0.0150		197.1464
Worker	0.1673	0.1035	1.0411	3.3300e-003	0.3697	2.5000e-003	0.3722	0.0981	2.3000e-003	0.1004		331.4365	331.4365	9.0500e-003		331.6628
Total	0.1880	0.7748	1.2326	5.1600e-003	0.4171	3.8400e-003	0.4209	0.1117	3.5800e-003	0.1153		528.2083	528.2083	0.0240		528.8092

3.6 Paving - 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	0.7237	7.2942	9.4934	0.0148		0.3761	0.3761		0.3460	0.3460		1,428.1163	1,428.1163	0.4619		1,439.6633
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7237	7.2942	9.4934	0.0148		0.3761	0.3761		0.3460	0.3460		1,428.1163	1,428.1163	0.4619		1,439.6633

Smilax Property - San Diego County, Winter

3.6 Paving - 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	0.0483	0.0299	0.3008	9.6000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		95.7483	95.7483	2.6100e-003		95.8137
Total	0.0483	0.0299	0.3008	9.6000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		95.7483	95.7483	2.6100e-003		95.8137

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	0.1815	0.7863	11.1902	0.0148		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003	0.0000	1,428.1163	1,428.1163	0.4619		1,439.6633
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.1815	0.7863	11.1902	0.0148		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003	0.0000	1,428.1163	1,428.1163	0.4619		1,439.6633

Smilax Property - San Diego County, Winter

3.6 Paving - 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	0.0483	0.0299	0.3008	9.6000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		95.7483	95.7483	2.6100e-003		95.8137
Total	0.0483	0.0299	0.3008	9.6000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		95.7483	95.7483	2.6100e-003		95.8137

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	43.1055					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		281.9062
Total	43.3100	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Smilax Property - San Diego County, Winter

3.7 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.0335	0.0207	0.2082	6.7000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		66.2873	66.2873	1.8100e-003		66.3326
Total	0.0335	0.0207	0.2082	6.7000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		66.2873	66.2873	1.8100e-003		66.3326

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	43.1055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0183		281.9062
Total	43.1352	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0183		281.9062

Smilax Property - San Diego County, Winter

3.7 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.0335	0.0207	0.2082	6.7000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		66.2873	66.2873	1.8100e-003		66.3326
Total	0.0335	0.0207	0.2082	6.7000e-004	0.0739	5.0000e-004	0.0744	0.0196	4.6000e-004	0.0201		66.2873	66.2873	1.8100e-003		66.3326

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Smilax Property - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6418	2.3939	6.7961	0.0225	2.0871	0.0181	2.1052	0.5578	0.0168	0.5746		2,291.869 9	2,291.869 9	0.1238		2,294.965 0
Unmitigated	0.6418	2.3939	6.7961	0.0225	2.0871	0.0181	2.1052	0.5578	0.0168	0.5746		2,291.869 9	2,291.869 9	0.1238		2,294.965 0

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	496.00	496.00	496.00	984,371	984,371
Total	496.00	496.00	496.00	984,371	984,371

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
Condo/Townhouse	6.14	6.14	6.14	42.00	18.00	40.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

5.0 Energy Detail

Historical Energy Use: N

Smilax Property - San Diego County, Winter

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Smilax Property - San Diego County, Winter

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	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317
Unmitigated	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317

Smilax Property - San Diego County, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3268					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1541	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283		9.2102	9.2102	8.8600e-003		9.4317
Total	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3268					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1541	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283		9.2102	9.2102	8.8600e-003		9.4317
Total	1.6935	0.0590	5.1162	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2102	9.2102	8.8600e-003	0.0000	9.4317

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

Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Smilax Property - San Diego County, Winter

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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Smilax Property

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	62.00	Dwelling Unit	4.89	62,000.00	177

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	498.31	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2023 Full Operations Expected

Land Use - 4.89 ac site

Construction Phase - Construction Sch. (CS)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - CS

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction Equip. (CE)

Trips and VMT -

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Demolition -

Grading - CE

Architectural Coating - Rule 67 paint

Vehicle Trips - Per Traffic Engineer and 8 trips per unit and 6.14 average trips dist.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No Fireplaces

Area Coating - Rule 67 Paint

Energy Use - Project is all electric no natural gas required

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

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[illegible]

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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	T24NG	10,202.85	0.00
tblFireplaces	NumberGas	34.10	0.00
tblFireplaces	NumberNoFireplace	6.20	0.00
tblFireplaces	NumberWood	21.70	0.00
tblGrading	AcresOfGrading	0.00	4.00
tblLandUse	LotAcreage	3.88	4.89
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	498.31
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblSequestration	NumberOfNewTrees	0.00	124.00
tblVehicleTrips	HO_TL	7.50	6.14
tblVehicleTrips	HO_TTP	39.60	40.00
tblVehicleTrips	HS_TL	7.30	6.14
tblVehicleTrips	HS_TTP	18.80	18.00
tblVehicleTrips	HW_TL	10.80	6.14
tblVehicleTrips	HW_TTP	41.60	42.00

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tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	WD_TR	5.81	8.00
tblWoodstoves	NumberCatalytic	3.10	0.00
tblWoodstoves	NumberNoncatalytic	3.10	0.00

2.0 Emissions Summary

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2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2645	2.3655	2.2187	4.0100e-003	0.0927	0.1235	0.2162	0.0350	0.1158	0.1509	0.0000	350.2210	350.2210	0.0753	0.0000	352.1045
2022	0.3988	0.0952	0.1239	2.1000e-004	2.0000e-003	4.9400e-003	6.9400e-003	5.3000e-004	4.6200e-003	5.1600e-003	0.0000	18.0964	18.0964	4.5300e-003	0.0000	18.2098
Maximum	0.3988	2.3655	2.2187	4.0100e-003	0.0927	0.1235	0.2162	0.0350	0.1158	0.1509	0.0000	350.2210	350.2210	0.0753	0.0000	352.1045

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0621	0.3685	2.3321	4.0100e-003	0.0927	1.2500e-003	0.0939	0.0350	1.2200e-003	0.0362	0.0000	350.2206	350.2206	0.0753	0.0000	352.1041
2022	0.3910	0.0117	0.1405	2.1000e-004	2.0000e-003	6.0000e-005	2.0500e-003	5.3000e-004	6.0000e-005	5.9000e-004	0.0000	18.0964	18.0964	4.5300e-003	0.0000	18.2097
Maximum	0.3910	0.3685	2.3321	4.0100e-003	0.0927	1.2500e-003	0.0939	0.0350	1.2200e-003	0.0362	0.0000	350.2206	350.2206	0.0753	0.0000	352.1041

	ROG	NOx	CO	SO2	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	31.69	84.55	-5.55	0.00	0.00	98.98	56.99	0.00	98.94	76.39	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
5	1-1-2021	3-31-2021	0.6314	0.0791
6	4-1-2021	6-30-2021	0.6605	0.1155
7	7-1-2021	9-30-2021	0.6678	0.1168
8	10-1-2021	12-31-2021	0.6688	0.1178
9	1-1-2022	3-31-2022	0.5113	0.4162
		Highest	0.6688	0.4162

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2948	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	70.3961	70.3961	2.8300e-003	5.7000e-004	70.6352
Mobile	0.1137	0.4371	1.2184	4.1400e-003	0.3709	3.2700e-003	0.3742	0.0993	3.0500e-003	0.1024	0.0000	382.3625	382.3625	0.0202	0.0000	382.8668
Waste						0.0000	0.0000		0.0000	0.0000	5.7893	0.0000	5.7893	0.3421	0.0000	14.3428
Water						0.0000	0.0000		0.0000	0.0000	1.2816	18.2841	19.5657	0.1324	3.2500e-003	23.8447
Total	0.4085	0.4424	1.6788	4.1600e-003	0.3709	5.8200e-003	0.3768	0.0993	5.6000e-003	0.1049	7.0709	471.7947	478.8656	0.4982	3.8200e-003	492.4594

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2948	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	61.2771	61.2771	2.4600e-003	4.9000e-004	61.4852
Mobile	0.1137	0.4371	1.2184	4.1400e-003	0.3709	3.2700e-003	0.3742	0.0993	3.0500e-003	0.1024	0.0000	382.3625	382.3625	0.0202	0.0000	382.8668
Waste						0.0000	0.0000		0.0000	0.0000	4.3420	0.0000	4.3420	0.2566	0.0000	10.7571
Water						0.0000	0.0000		0.0000	0.0000	1.2816	17.0051	18.2866	0.1323	3.2400e-003	22.5613
Total	0.4085	0.4424	1.6788	4.1600e-003	0.3709	5.8200e-003	0.3768	0.0993	5.6000e-003	0.1049	5.6235	461.3967	467.0202	0.4123	3.7300e-003	478.4404

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.47	2.20	2.47	17.25	2.36	2.85

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2.3 Vegetation**Vegetation**

	CO2e
Category	MT
New Trees	91.0160
Total	91.0160

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/4/2021	5	5	
3	Grading	Grading	2/5/2021	2/16/2021	5	8	
4	Building Construction	Building Construction	2/17/2021	1/4/2022	5	230	
5	Paving	Paving	1/5/2022	1/28/2022	5	18	
6	Architectural Coating	Architectural Coating	1/29/2022	2/23/2022	5	18	

Acres of Grading (Site Preparation Phase): 4**Acres of Grading (Grading Phase): 4****Acres of Paving: 0**

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Residential Indoor: 125,550; Residential Outdoor: 41,850; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
demolition	Excavators	1	8.00	158	0.38
demolition	Rubber Tired Dozers	1	8.00	247	0.40
demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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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	3	8.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	45.00	7.00	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	9.00	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

Use DPF for Construction Equipment

3.2 demolition - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.1502	0.0957	1.7000e-004		7.4900e-003	7.4900e-003		6.8900e-003	6.8900e-003	0.0000	14.7730	14.7730	4.7800e-003	0.0000	14.8924
Total	0.0146	0.1502	0.0957	1.7000e-004	1.4900e-003	7.4900e-003	8.9800e-003	2.3000e-004	6.8900e-003	7.1200e-003	0.0000	14.7730	14.7730	4.7800e-003	0.0000	14.8924

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3.2 demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8300e-003	4.5000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5331	0.5331	5.0000e-005	0.0000	0.5343
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.0000e-004	2.0000e-003	1.0000e-005	6.4000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5604	0.5604	2.0000e-005	0.0000	0.5608
Total	3.3000e-004	2.0300e-003	2.4500e-003	2.0000e-005	7.6000e-004	1.0000e-005	7.8000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	1.0936	1.0936	7.0000e-005	0.0000	1.0952

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0600e-003	8.9300e-003	0.1009	1.7000e-004		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	14.7730	14.7730	4.7800e-003	0.0000	14.8924
Total	2.0600e-003	8.9300e-003	0.1009	1.7000e-004	1.4900e-003	4.0000e-005	1.5300e-003	2.3000e-004	4.0000e-005	2.7000e-004	0.0000	14.7730	14.7730	4.7800e-003	0.0000	14.8924

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3.2 demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8300e-003	4.5000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5331	0.5331	5.0000e-005	0.0000	0.5343
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.0000e-004	2.0000e-003	1.0000e-005	6.4000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5604	0.5604	2.0000e-005	0.0000	0.5608
Total	3.3000e-004	2.0300e-003	2.4500e-003	2.0000e-005	7.6000e-004	1.0000e-005	7.8000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	1.0936	1.0936	7.0000e-005	0.0000	1.0952

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0172	0.0000	0.0172	8.5000e-003	0.0000	8.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0322	0.0158	3.0000e-005		1.6100e-003	1.6100e-003		1.4800e-003	1.4800e-003	0.0000	2.5588	2.5588	8.3000e-004	0.0000	2.5795
Total	3.0800e-003	0.0322	0.0158	3.0000e-005	0.0172	1.6100e-003	0.0188	8.5000e-003	1.4800e-003	9.9800e-003	0.0000	2.5588	2.5588	8.3000e-004	0.0000	2.5795

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3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0876	0.0876	0.0000	0.0000	0.0876
Total	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0876	0.0876	0.0000	0.0000	0.0876

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0172	0.0000	0.0172	8.5000e-003	0.0000	8.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	1.5400e-003	0.0154	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.5588	2.5588	8.3000e-004	0.0000	2.5795
Total	3.6000e-004	1.5400e-003	0.0154	3.0000e-005	0.0172	1.0000e-005	0.0172	8.5000e-003	1.0000e-005	8.5100e-003	0.0000	2.5588	2.5588	8.3000e-004	0.0000	2.5795

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3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0876	0.0876	0.0000	0.0000	0.0876
Total	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0876	0.0876	0.0000	0.0000	0.0876

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1600e-003	0.0990	0.0634	1.2000e-004		4.6400e-003	4.6400e-003		4.2700e-003	4.2700e-003	0.0000	10.4215	10.4215	3.3700e-003	0.0000	10.5057
Total	9.1600e-003	0.0990	0.0634	1.2000e-004	0.0262	4.6400e-003	0.0309	0.0135	4.2700e-003	0.0177	0.0000	10.4215	10.4215	3.3700e-003	0.0000	10.5057

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3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4203	0.4203	1.0000e-005	0.0000	0.4206
Total	2.1000e-004	1.5000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4203	0.4203	1.0000e-005	0.0000	0.4206

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	6.2900e-003	0.0710	1.2000e-004		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	10.4215	10.4215	3.3700e-003	0.0000	10.5057
Total	1.4500e-003	6.2900e-003	0.0710	1.2000e-004	0.0262	3.0000e-005	0.0262	0.0135	3.0000e-005	0.0135	0.0000	10.4215	10.4215	3.3700e-003	0.0000	10.5057

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3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4203	0.4203	1.0000e-005	0.0000	0.4206
Total	2.1000e-004	1.5000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4203	0.4203	1.0000e-005	0.0000	0.4206

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2167	1.9873	1.8896	3.0700e-003		0.1093	0.1093		0.1028	0.1028	0.0000	264.0665	264.0665	0.0637	0.0000	265.6592
Total	0.2167	1.9873	1.8896	3.0700e-003		0.1093	0.1093		0.1028	0.1028	0.0000	264.0665	264.0665	0.0637	0.0000	265.6592

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4700e-003	0.0820	0.0219	2.1000e-004	5.3000e-003	1.7000e-004	5.4700e-003	1.5300e-003	1.7000e-004	1.7000e-003	0.0000	20.8629	20.8629	1.5500e-003	0.0000	20.9016
Worker	0.0178	0.0127	0.1282	4.0000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112	0.0000	35.9368	35.9368	1.0300e-003	0.0000	35.9626
Total	0.0203	0.0947	0.1500	6.1000e-004	0.0464	4.6000e-004	0.0469	0.0125	4.4000e-004	0.0129	0.0000	56.7997	56.7997	2.5800e-003	0.0000	56.8642

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0374	0.2548	1.9905	3.0700e-003		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	264.0662	264.0662	0.0637	0.0000	265.6589
Total	0.0374	0.2548	1.9905	3.0700e-003		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	264.0662	264.0662	0.0637	0.0000	265.6589

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4700e-003	0.0820	0.0219	2.1000e-004	5.3000e-003	1.7000e-004	5.4700e-003	1.5300e-003	1.7000e-004	1.7000e-003	0.0000	20.8629	20.8629	1.5500e-003	0.0000	20.9016
Worker	0.0178	0.0127	0.1282	4.0000e-004	0.0411	2.9000e-004	0.0414	0.0109	2.7000e-004	0.0112	0.0000	35.9368	35.9368	1.0300e-003	0.0000	35.9626
Total	0.0203	0.0947	0.1500	6.1000e-004	0.0464	4.6000e-004	0.0469	0.0125	4.4000e-004	0.0129	0.0000	56.7997	56.7997	2.5800e-003	0.0000	56.8642

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7100e-003	0.0156	0.0164	3.0000e-005		8.1000e-004	8.1000e-004		7.6000e-004	7.6000e-004	0.0000	2.3173	2.3173	5.6000e-004	0.0000	2.3311
Total	1.7100e-003	0.0156	0.0164	3.0000e-005		8.1000e-004	8.1000e-004		7.6000e-004	7.6000e-004	0.0000	2.3173	2.3173	5.6000e-004	0.0000	2.3311

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.8000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1813	0.1813	1.0000e-005	0.0000	0.1816
Worker	1.5000e-004	1.0000e-004	1.0400e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3037	0.3037	1.0000e-005	0.0000	0.3039
Total	1.7000e-004	7.8000e-004	1.2200e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4850	0.4850	2.0000e-005	0.0000	0.4855

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3000e-004	2.2300e-003	0.0175	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.3173	2.3173	5.6000e-004	0.0000	2.3311
Total	3.3000e-004	2.2300e-003	0.0175	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.3173	2.3173	5.6000e-004	0.0000	2.3311

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.8000e-004	1.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1813	0.1813	1.0000e-005	0.0000	0.1816
Worker	1.5000e-004	1.0000e-004	1.0400e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3037	0.3037	1.0000e-005	0.0000	0.3039
Total	1.7000e-004	7.8000e-004	1.2200e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4850	0.4850	2.0000e-005	0.0000	0.4855

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5100e-003	0.0657	0.0854	1.3000e-004		3.3800e-003	3.3800e-003		3.1100e-003	3.1100e-003	0.0000	11.6601	11.6601	3.7700e-003	0.0000	11.7544
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.5100e-003	0.0657	0.0854	1.3000e-004		3.3800e-003	3.3800e-003		3.1100e-003	3.1100e-003	0.0000	11.6601	11.6601	3.7700e-003	0.0000	11.7544

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.6000e-004	2.7100e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7896	0.7896	2.0000e-005	0.0000	0.7901
Total	3.8000e-004	2.6000e-004	2.7100e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7896	0.7896	2.0000e-005	0.0000	0.7901

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	7.0800e-003	0.1007	1.3000e-004		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	11.6601	11.6601	3.7700e-003	0.0000	11.7544
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.6300e-003	7.0800e-003	0.1007	1.3000e-004		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	11.6601	11.6601	3.7700e-003	0.0000	11.7544

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.6000e-004	2.7100e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7896	0.7896	2.0000e-005	0.0000	0.7901
Total	3.8000e-004	2.6000e-004	2.7100e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7896	0.7896	2.0000e-005	0.0000	0.7901

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	0.3898	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017

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3.7 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.8000e-004	1.8800e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5466	0.5466	1.0000e-005	0.0000	0.5470
Total	2.7000e-004	1.8000e-004	1.8800e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5466	0.5466	1.0000e-005	0.0000	0.5470

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	1.1600e-003	0.0165	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	0.3882	1.1600e-003	0.0165	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017

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3.7 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.8000e-004	1.8800e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5466	0.5466	1.0000e-005	0.0000	0.5470
Total	2.7000e-004	1.8000e-004	1.8800e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5466	0.5466	1.0000e-005	0.0000	0.5470

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1137	0.4371	1.2184	4.1400e-003	0.3709	3.2700e-003	0.3742	0.0993	3.0500e-003	0.1024	0.0000	382.3625	382.3625	0.0202	0.0000	382.8668
Unmitigated	0.1137	0.4371	1.2184	4.1400e-003	0.3709	3.2700e-003	0.3742	0.0993	3.0500e-003	0.1024	0.0000	382.3625	382.3625	0.0202	0.0000	382.8668

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	496.00	496.00	496.00	984,371	984,371
Total	496.00	496.00	496.00	984,371	984,371

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
Condo/Townhouse	6.14	6.14	6.14	42.00	18.00	40.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Install High Efficiency Lighting

[illegible]

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5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	311446	70.3961	2.8300e-003	5.7000e-004	70.6352
Total		70.3961	2.8300e-003	5.7000e-004	70.6352

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	271102	61.2771	2.4600e-003	4.9000e-004	61.4852
Total		61.2771	2.4600e-003	4.9000e-004	61.4852

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2948	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Unmitigated	0.2948	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0139	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Total	0.2948	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0139	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Total	0.2948	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701

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

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.2866	0.1323	3.2400e-003	22.5613
Unmitigated	19.5657	0.1324	3.2500e-003	23.8447

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	4.03955 / 2.54667	19.5657	0.1324	3.2500e-003	23.8447
Total		19.5657	0.1324	3.2500e-003	23.8447

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Land Use	Mgal	MT/yr			
Condo/Townhouse	4.03955 / 2.03734	18.2866	0.1323	3.2400e-003	22.5613
Total		18.2866	0.1323	3.2400e-003	22.5613

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.3420	0.2566	0.0000	10.7571
Unmitigated	5.7893	0.3421	0.0000	14.3428

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	28.52	5.7893	0.3421	0.0000	14.3428
Total		5.7893	0.3421	0.0000	14.3428

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	21.39	4.3420	0.2566	0.0000	10.7571
Total		4.3420	0.2566	0.0000	10.7571

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	91.0160	0.0000	0.0000	91.0160

11.2 Net New Trees**Species Class**

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	124	91.0160	0.0000	0.0000	91.0160
Total		91.0160	0.0000	0.0000	91.0160

ATTACHMENT B

AERMOD for DPM PM₁₀

1 AERMOD PRIME - (DATED 18081)
AERMODPrMSPx VERSION
(C) COPYRIGHT 1998-2017, Trinity Consultants

Run Began on 10/24/2019 at 10:39:45

** BREEZE AERMOD
** Trinity Consultants
** VERSION 8.1

CO STARTING
CO TITLEONE Smilax DPM
CO MODELOPT DFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID PM10
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
SO LOCATION RCTT9000 AREAPOLY 480451.2 3668764 0
** SRCDESCR Area Source
SO SRCPARAM RCTT9000 1.05E-09 3 7 1
SO AREAVERT RCTT9000 480451.2 3668764 480633.2 3668686.4 480612.9 3668640.6 480618.2 3668638.4
SO AREAVERT RCTT9000 480598.4 3668594.3 480412 3668674.1 480451.2 3668764
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
RE DISCCART 480347.3 3668616.8 0 0
** SENSITIV
** RCPDESCR School Site R1
RE DISCCART 480379.4 3668688.6 0 0
** SENSITIV
** RCPDESCR School Field R2
RE DISCCART 480385.2 3668751.6 0 0
** SENSITIV
** RCPDESCR Home West R3
RE DISCCART 480496.2 3668757.8 0 0
** SENSITIV
** RCPDESCR Adjacent Home North R4
RE DISCCART 480621.7 3668704 0 0
** SENSITIV
** RCPDESCR Adjacent Home North R5
RE DISCCART 480634.4 3668621.3 0 0
** SENSITIV
** RCPDESCR Adjacent Home East R6
RE DISCCART 480557.6 3668576.4 0 0
** SENSITIV
** RCPDESCR Adjacent Home South R7
RE DISCCART 480455.7 3668624.6 0 0
** SENSITIV
** RCPDESCR Adjacent Home South R7
RE FINISHED

ME STARTING
ME SURFFILE "C:\Users\XEONRT\AMAZON~1\LDN\18-61A~1\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.SFC"
** SURFFILE "C:\Users\XEONRT\AMAZON~1\LDN\18-61A~1\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.SFC"
ME PROFFILE "C:\Users\XEONRT\AMAZON~1\LDN\18-61A~1\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
** PROFFILE "C:\Users\XEONRT\AMAZON~1\LDN\18-61A~1\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
ME SURFDATA 53120 2012
ME UAIRDATA 3190 2012
ME SITEDATA 00001002 2012
ME PROFBASE 220 METERS
ME FINISHED

OU STARTING

OU FILEFORM FIX
OU PLOTFILE ANNUAL ALL ALL`ANNUAL.plt 10000
OU FINISHED

** *****
** It is recommended that the user not edit any data below this line
** *****

** TERRFILE C:\USERS\XEONRT\AMAZON~1\LDN\18-61A~1\AERMOD\NEDU30~1\NEDU30810103.TIF 2 0 WGS84 11 0 480607.1
3664161.0 480616.7 3669036.2 490098.1 3669022.0 490093.2 3664146.8
** AMPTYPE NED
** AMPDATUM 2
** AMPZONE 11
** AMPHEMISPHERE N

** PROJECTIONWKT
PROJCS["UTM_4326_Zone2",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.25722356
3],TOWGS84[0,0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transvers
e_Mercator"],PARAMETER["Zone",2],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]
** PROJECTION UTM
** DATUM WGE
** UNITS METER
** ZONE 2
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNIFORM
** TEMPLATE USERDEFINED
** AERMODEXE AERMOD_BREEZE_18081_64.EXE
** AERMAPEXE AERMAP_EPA_11103.EXE

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
ME W186 67 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.40
MX W403 67 PFLCNV: Turbulence data is being used w/o ADJ_U* option SigA Data
MX W402 67 PFLCNV: Turbulence data being used with ADJ_U* w/o DFAULT Option

*** SETUP Finishes Successfully ***

▲ *** AERMOD - VERSION 18081 *** *** Smilax DPM ***
10/24/19
*** AERMET - VERSION 15181 *** ***
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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:

CCVR_Sub - Meteorological data includes CCVR substitutions

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM10

**Model Calculates ANNUAL Averages Only

**This Run Includes: 1 Source(s); 1 Source Group(s); and 8 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 15181

**Output Options Selected:

Model Outputs Tables of ANNUAL Averages by Receptor

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 220.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0

Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07

Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

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 *** AERMET - VERSION 15181 *** ***
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 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
RCTT9000	0	0.10500E-08	480451.2	3668764.0	0.0	3.00	7	1.00	NO	

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 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
-----	-----

ALL RCTT9000 ,
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 *** AERMET - VERSION 15181 *** ***
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 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
 (1=YES; 0=NO)

1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1			

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
 (METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,
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 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\XEONRT\AMAZON~1\LDN\18-61A~1\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.SFC Met Version:
 15181
 Profile file: C:\Users\XEONRT\AMAZON~1\LDN\18-61A~1\AERMOD\ESCOND~1\ESCONDIDO-2012-V15181.PFL
 Surface format: FREE

Profile format: FREE

Surface station no.: 53120 Upper air station no.: 3190
 Name: UNKNOWN Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA
12	01	01	1	01	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	51.	10.0	282.5	10.0		
12	01	01	1	02	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	64.	10.0	281.9	10.0		
12	01	01	1	03	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	31.	10.0	280.9	10.0		
12	01	01	1	04	-2.9	0.056	-9.000	-9.000	-999.	32.	5.5	0.15	1.10	1.00	1.18	130.	10.0	280.4	10.0		
12	01	01	1	05	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	47.	10.0	280.4	10.0		
12	01	01	1	06	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	39.	10.0	279.8	10.0		
12	01	01	1	07	-0.7	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	60.	10.0	279.2	10.0		
12	01	01	1	08	-0.5	0.029	-9.000	-9.000	-999.	12.	4.0	0.47	1.10	0.50	0.44	42.	10.0	280.4	10.0		
12	01	01	1	09	33.3	0.106	0.323	0.014	36.	83.	-3.2	0.47	1.10	0.30	0.44	44.	10.0	285.4	10.0		
12	01	01	1	10	85.9	0.121	0.634	0.011	106.	101.	-1.8	0.48	1.10	0.23	0.44	232.	10.0	291.4	10.0		
12	01	01	1	11	123.6	0.252	0.982	0.005	273.	303.	-11.5	0.48	1.10	0.21	1.34	242.	10.0	297.5	10.0		
12	01	01	1	12	141.2	0.255	1.253	0.005	496.	309.	-10.4	0.48	1.10	0.20	1.34	249.	10.0	299.8	10.0		
12	01	01	1	13	139.0	0.308	1.399	0.005	700.	410.	-18.6	0.48	1.10	0.20	1.78	244.	10.0	300.4	10.0		
12	01	01	1	14	118.4	0.303	1.510	0.005	1033.	401.	-20.9	0.48	1.10	0.21	1.78	241.	10.0	301.4	10.0		
12	01	01	1	15	79.3	0.291	1.390	0.005	1204.	377.	-27.6	0.48	1.10	0.24	1.78	260.	10.0	301.4	10.0		
12	01	01	1	16	24.5	0.162	0.951	0.005	1244.	167.	-15.4	0.51	1.10	0.34	0.89	292.	10.0	299.8	10.0		
12	01	01	1	17	-2.5	0.060	-9.000	-9.000	-999.	45.	7.5	0.51	1.10	0.61	0.89	282.	10.0	296.9	10.0		
12	01	01	1	18	-0.6	0.029	-9.000	-9.000	-999.	12.	3.4	0.47	1.10	1.00	0.44	10.	10.0	293.1	10.0		
12	01	01	1	19	-4.0	0.066	-9.000	-9.000	-999.	40.	6.3	0.11	1.10	1.00	1.48	329.	10.0	290.4	10.0		
12	01	01	1	20	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	65.	10.0	288.1	10.0		
12	01	01	1	21	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	61.	10.0	286.4	10.0		

12 01 01	1 22	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	33.	10.0	285.4
10.0															
12 01 01	1 23	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	50.	10.0	284.2
10.0															
12 01 01	1 24	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	42.	10.0	283.1
10.0															

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	10.0	1	51.	0.44	282.6	30.0	-99.00	0.20

F indicates top of profile (=1) or below (=0)

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL

INCLUDING SOURCE(S): RCTT9000 ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3			**		
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
480347.30	3668616.80	0.00613	480379.40	3668688.60	0.00939
480385.20	3668751.60	0.00512	480496.20	3668757.80	0.00598
480621.70	3668704.00	0.00755	480634.40	3668621.30	0.00824
480557.60	3668576.40	0.00564	480455.70	3668624.60	0.01002

*** AERMOD - VERSION 18081 *** Smilax DPM ***
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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
------------------	--------------	--	---------

ALL	1ST HIGHEST VALUE IS	0.01002 AT (480455.70, 3668624.60, 0.00, 0.00, 0.00)	SR
	2ND HIGHEST VALUE IS	0.00939 AT (480379.40, 3668688.60, 0.00, 0.00, 0.00)	SR
	3RD HIGHEST VALUE IS	0.00824 AT (480634.40, 3668621.30, 0.00, 0.00, 0.00)	SR
	4TH HIGHEST VALUE IS	0.00755 AT (480621.70, 3668704.00, 0.00, 0.00, 0.00)	SR
	5TH HIGHEST VALUE IS	0.00613 AT (480347.30, 3668616.80, 0.00, 0.00, 0.00)	SR

6TH HIGHEST VALUE IS	0.00598 AT (	480496.20,	3668757.80,	0.00,	0.00,	0.00)	SR
7TH HIGHEST VALUE IS	0.00564 AT (	480557.60,	3668576.40,	0.00,	0.00,	0.00)	SR
8TH HIGHEST VALUE IS	0.00512 AT (	480385.20,	3668751.60,	0.00,	0.00,	0.00)	SR
9TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00,	0.00)	
10TH HIGHEST VALUE IS	0.00000 AT (	0.00,	0.00,	0.00,	0.00,	0.00)	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

▲ *** AERMOD - VERSION 18081 *** *** Smilax DPM
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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 3 Warning Message(s)
 A Total of 378 Informational Message(s)
 A Total of 8784 Hours Were Processed
 A Total of 250 Calm Hours Identified
 A Total of 128 Missing Hours Identified (1.46 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 67 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.40
 MX W403 67 PFLCNV: Turbulence data is being used w/o ADJ_U* option SigA Data
 MX W402 67 PFLCNV: Turbulence data being used with ADJ_U* w/o DFAULT Option

 *** AERMOD Finishes Successfully ***

ATTACHMENT C

Health Risk Calculations

Air Quality Health Risk Calculations (Worst-Case)						
Smilax with Tier 4 PDF with DPF						
From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	0.00083				
	Construction Start	1/1/2020				
	Construction Complete	2/22/2021				
	Days	418				
	Construction Emission per day (lb/day)	0.003971292				
	Annual Duration (Days)	365				
	Annualized Emission Rate (Grams/Second)	2.08217E-05				
	Project Site Size (Acres)	4.89				
	Project Site Size (meters^2)	19789.12791				
	Length of Smalles Side (meters)	140.6738352				
Used as an input to SCREEN3	Emission Rate over Grading Area(g/s-m^2)	1.05E-09				
From SCREEN3*0.08	Concentration Annual (Ug/M^3)	0.01				
	Days	Days to years				
Duration	458	1.254794521				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.01	0.01	0.01	0.01	0.01	0.01
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000347	0.00001046	0.00000827	0.00000715	0.00000322	0.00000278
Construction Days	458	1.254794521				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	1.254794521	1.254794521	1.254794521	1.254794521	1.254794521
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	0.73
Risk for Each Age Group	1.15726E-07	1.75382E-06	3.52043E-07	3.04613E-07	4.6292E-08	4.00737E-08
Risk per million Exposed	0.115726286	1.753815546	0.352042741	0.304613057	0.046292023	0.040073691
Cancer Risk Per Million 9-years	2.22					
Cancer Risk Per Million 30-years	2.22					
Cancer Risk Per Million 70-years	2.21					