Appendix B – Air Quality/GHG/CAP Analysis

AIR QUALITY AND GREENHOUSE GAS ANALYSIS FOR PUBLIC USE PERMIT NO. 210002 UNINCORPORATED WOODCREST, RIVERSIDE COUNTY, CALIFORNIA

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APPENDICES

1. Air Quality and Health Risk Significance Thresholds

1.1. Introduction

This study analyzes the potential air quality and greenhouse gas impacts of new construction associated with the proposed application for Public Use Permit No. 210002 (Project) is a proposal to construct the 53,466 square-foot (sf) I Kuan Tao – Riverside County campus (IKT Riverside) in unincorporated Riverside County, California. The purpose of this study is to analyze the project's potential impact(s) related to both temporary construction activity and long-term operation of the project as it relates to new construction on the site as proposed by the applicant.

1.2. Project Summary

1.2.1. Location and Setting

The project site is in in the in the unincorporated Woodcrest area of Riverside County at the corner of Markham Street and Cole Avenue on Assessor's Parcel Number (APN) 266-320-025. This site is bordered by single-family residential to the west, north, and east, two large tanks to the east, and undeveloped land to the south. The project site is currently vacant.

1.2.2. Proposed Project

The proposed project consists of the following:

- Demolition of minor existing agricultural structures.
- Site preparation and grading.
- Development of a religious campus consisting of multiple buildings. This includes an office, meeting rooms, auditorium, exhibition rooms, prayer hall, Sunday school, dining, kitchen, bathroom, laundry, and library facilities totaling 53,466 square feet.
- Development of 168 parking stalls for normal use, with an additional 87 for periodic use for overflow purposes.
- Development of two vehicular accesses.
- Creation of a conservation area on the northeast portion of the site.

The project will require the use of heavy equipment for demolition and grading purposes. The project will have BMPs for erosion control during construction.

1.3. Regional Significance Thresholds

The SCAQMD has established regional significance thresholds for NOx, SOx, CO, VOC, PM_{10}, $PM_{2.5}$. Projects located within the South Coast Air Basin (SoCAB) with construction or operational-related emissions more than any of the thresholds presented in the following **Table 1**, *SCAQMD Regional Thresholds* would be considered significant.

Table 1. SCAQMD Regional Thresholds		
Pollutant	**Construction (lbs./day)**	**Operation (lbs./day)**
Oxides of Nitrogen (NOx)	100	55
Oxides of Sulfur (SOx)	150	150
Carbon Monoxide (CO)	550	550
Reactive Organic Gasses (VOC)	75	55
Particulate Matter (PM_{10})	150	150
Particulate Matter ($PM_{2.5}$)	55	55

Source: South Coast Air Quality Management District, SCAQMD 2019

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "non-attainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National non-attainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For instance, the Federal 8-hour CO standard is not to be exceeded more than once per year. For this example, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM2.5 standard is met if the three-year average of the annual average PM2.5 concentration is less than or equal to the standard. The attainment status for the criteria pollutants in the basin are provided in **Table 2**, *South Coast Air Basin Attainment Status*.

Table 2. South Coast Air Basin Attainment Status				
Pollutant	**Averaging Time**	**National Standards [1]**	**Attainment Date [2]**	**California Standards [3]**
1979 1-Hour Ozone [4]	1-Hour 0.12 ppm	Non-attainment (Extreme)	11/15/2010 (Not Attained)[4]	Extreme Non-attainment
1997 8-Hour Ozone [5]	8-Hour 0.08 ppm	Non-attainment (Extreme)	6/15/2024	Non-attainment
2008 8-Hour Ozone	8-Hour 0.075 ppm	Non-attainment (Extreme)	12/31/2032	Non-attainment
2015 8-Hour Ozone	8-Hour 0.070 ppm	Designations Pending	Approx. 2037	Non-attainment
CO	1-Hour (35ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (Attained)	Maintenance
NO_2 [6]	1-Hour (100 ppb) Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (Attained)	Attainment
SO_2 [7]	1-Hour (75 ppm)	Designations Pending	Pending	Attainment
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/ Attainment	3/19/1979 (Attained)	Attainment
PM10	24-Hour (150 µg/m^3)	Non-attainment (Serious)[8]	12/31/2006 (Redesignation request submitted)[8]	Non-attainment

Table 2. South Coast Air Basin Attainment Status				
PM2.5	24-Hour (35 µg/m^3)	Non-attainment	12/31/2006 (Redesignation request submitted)[8]	Unclassified
Lead	3-Months Rolling (0.15 µg/m^3)	Non-attainment (Partial)[9]	12/31/2015	Non-attainment (Partial)[9]

Notes:

[1] Obtained from Draft 2012 AQMP, SCAQMD, 2012. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassified/Attainment or Unclassifiable.

[2] A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.

[3] Obtained from http://www.arb.ca.gov/desig/adm/adm.htm.

[4] 1-hour O3 standard (0.13 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard based on 2008-2010 data has some continuing obligations under the former standard.

[5] 1997 8-hour O3 standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the 1997 O3 standard and most related implementation rules remain in place until the 1997 standard is revoked by U.S. EPA.

[6] New NO2 1-hour standard, effective August 2, 2010; attainment designations June 2013; annual NO2 standard retained.

[7] The 1971 annual and 24-hour SO2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO2 1-hour standard. Area designations expected in 2012, with SSAB designated Unclassifiable/Attainment.

[8] Annual PM10 standard was revoked, effective December 18, 2006; redesignation request to Attainment of the 24-hour PM10 standard is pending with U.S. EPA

[9] Partial Nonattainment designation - Los Angeles County portion of Basin only.

1.4. Local Significance Thresholds (LSTs)

Local Significance Thresholds (LSTs) have been developed by the SCAQMD, recognizing that criteria pollutants such as CO, NOx, and PM10 and PM2.5 can have local impacts as well as regional impacts. The evaluation of localized air quality impacts determines the potential of the Project to violate any air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. LSTs, defined separately for construction and operational activities, represent the maximum emissions or air concentrations from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard at any nearby sensitive or worker receptor.

A sensitive receptor is defined by SCAQMD as any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. Also included are long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

For projects of around 5 acres or less where emissions would occur, the SCAQMD has developed a series of look up tables that provide estimates of daily construction or operational emissions above which a project's emissions are determined to have a significant air quality impact. These LSTs are provided for each combination of pollutants (CO, NO2, PM10, and PM2.5), Source-Receptor Area (SRA), size of the project emission area, and distance to the nearest sensitive receptor. The Central Los Angeles County SRA for this project is listed as number 24. The project size is generally represented as the maximum area disturbed during a day from which emissions are calculated, in this case about five acres.

1.4.1. Construction

For construction activities, the highest level of on-site emissions generally occurs during the mass grading activities. The California Emissions Estimator Model (CalEEMod) which is used to estimate emissions from various land use projects, identifies various kinds of equipment and the acreage disturbed in an 8-hour day. Based on the construction equipment inventory to be provided in **Table 6** below, a maximum area of about five (5) acres would be disturbed in a day. For purposes of this LST assessment of construction emissions, the emissions from the project's roughly five (5) acres were compared to the LST emission significance thresholds for a 5-acre area in the SCAQMD lookup tables.

There are three (3) sensitive receptors nearest to the project site (<164 feet; <50 meters) as described in **Table 3**, *Location of Sensitive Receptors.* There are additional residences along the project boundary beyond these, all of which are more than 164 feet (50 meters) from the project construction area. Sensitive receptors other than single family residences include Citrus Hill High School, located approximately 700 feet (~213 meters) southwest, New Hope Missionary Baptist Church located approximately 1,700 feet (~518 meters) northwest, and San Miguel Arcangel Church located approximately 1,765 feet (~538 meters) north of the project construction area.

Table 3. Location of Sensitive Receptors

Receptor Address	Location Relative to Project[1]	Type of Receptor
17895 Cole Ave.	80 feet (~24 meters)	Residential
17921 Cole Ave.	90 feet (~27 meters)	Residential
19488 Ontario Ave.	90 feet (~27 meters)	Residential
19481 Ray Ave.	350 feet (~107 meters)	Residential
19482 Ray Ave.	500 feet (~152 meters)	Residential
17761 Cole Ave.	744 feet (~227 meters)	Residential
17730 Cole Ave.	934 feet (~285 meters)	Residential
19590 Landin Lane	855 feet (~261 meters)	Residential
19620 Landin Lane	872 feet (~266 meters)	Residential
19794 Landin Avenue	935 feet (~285 meters)	Residential

Note:
[1] Relative straight-line distance from existing sensitive receptor structures to the nearest project construction area in the southwest part of the property.

Based on a review of the existing sensitive receptors, the closest is 80 feet (~24 meters) west of the construction area in the southwest part of the project site.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. The CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. The project would result in a maximum of around five (5) acres disturbed during peak construction activity on any given day. The SCAQMD LST mass emission tables provide construction emission significance thresholds for a disturbed area of five (5) acres and was used

in the assessment.[1] This estimate is based on the construction equipment assumptions embedded in the CalEEMod defaults and represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site-specific construction fleet may vary, due to specific project needs at the time of construction.

Based on the project's location, daily construction emission area, and distance (50 meters) to nearest sensitive receptor, the relevant construction significance thresholds for the project are summarized in **Table 4**, *SCAQMD Localized Significance Thresholds for Construction* below.

Table 4. SCAQMD Localized Significance Thresholds for Construction	
Pollutant[1]	**Daily Emission Limit (lbs./day)[2]**
NOx	302
CO	2178
PM_{10}	40
$PM_{2.5}$	10
Notes: [1] SCAQMD has defined LSTs only for these pollutants [2] LSTs defined for SRA 24, 5-acre disturbed area and a 50-meter distance to the nearest sensitive receptor Source: SCAQMD 2009	

1.4.2. Operation

For project operations, the LST operational assessment was accomplished by comparison to the LST emission significance thresholds for a 5-acre area in the SCAQMD lookup tables. If the total air quality impact exceeds the values for the listed pollutants, then the project would be considered to have a significant air quality impact. **Table 5**, *SCAQMD Localized Significance Thresholds for Operations* below provides a summary of the project's operational LSTs.

Table 5. SCAQMD Localized Significance Thresholds for Operations	
Pollutant[1]	**Daily Emission Limit (lbs./day)[2]**
NOx	302
CO	2178
PM_{10}	10
$PM_{2.5}$	3
Notes: [1] SCAQMD has defined LSTs only for these pollutants [2] LSTs defined for SRA 24, 5-acre disturbed area and a 50-meter distance to the nearest sensitive receptor Source: SCAQMD 2009	

[1] The values of the LSTs are proportional to the size of the disturbed area. The larger the disturbed area, the higher the value of the LST.

The SCAQMD has also defined localized significance thresholds for sulfur dioxide, sulfate, and lead. The proposed project, however, is not expected to emit insignificant amounts of these pollutants.

1.5. Health Risk Significance Thresholds

In addition to the thresholds established above for pollutants, the SCAQMD has also defined health risk thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to toxic air contaminant (TAC)s. Cancer risk represents the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a period of 70 years for sensitive receptors. Thus, an individual located in an area with a cancer risk of one would experience a one chance out of a population of one million of contracting cancer over a 70-year time period, assuming that individual lives in that area continuously for the entire 70-year time period.

TACs can also cause chronic (long-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system effects, birth defects, or other adverse environmental effects. Risk characterization for non- cancer health hazards from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of the project's emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL). The SCAQMD has established the following health risk thresholds.

1.5.1. Project-Level Health Risk Significance Thresholds

The SCAQMD has established the following project-specific health risk significance thresholds (SCAQMD 2012):

- Maximum Incremental Cancer Risk: >=10 in 1 million.
- Hazard Index (project increment) >=1.0.

A significant impact would occur if a project's impacts exceeded any of these thresholds.

1.5.2. Cumulative Health Risk Significance Thresholds

The AQMD (SCAQMD 2003) uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

1.6. CO "Hotspot" Thresholds

The largest contributor of CO emissions during project operations is typically from motor vehicles. A CO hotspot represents a condition wherein high concentrations of CO may be produced by motor vehicles accessing a congested traffic intersection under heavy traffic volume conditions. The CO hotspot thresholds are represented by the most restricted state or federal CO ambient air quality standards:

- 1-hour CO standard: 20 ppm; and
- 8-hour CO standard: 9 ppm.

If the CO contributed by the Project in combination with CO produced by non-project traffic exceeds the above standards, then the Project would have a significant impact.

2. Air Quality and Health Risk Modeling Parameters and Assumptions

2.1. Model Selection

Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors represent the emission rate of a pollutant given the activity over time. The California Air Resources Board (CARB) has published emission factors for on-road mobile vehicles/trucks in the Emission Factors (EMFAC) mobile source emissions model (CARB 2014), and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the various levels of activity, and outputs the emissions for the various pieces of equipment.

Project emissions were estimated using CalEEMod version 2016.3.2 that was developed in cooperation with the SCAQMD and other air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with construction and operation from a variety of land uses.

2.2. Construction

2.2.1. Emission Assumptions

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the activity levels of heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM_{10}) from disturbed soil. Additionally, paving operations and application of architectural coatings would release ROG emissions. Off-site emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM_{10} and $PM_{2.5}$).

Construction equipment operating hours and numbers represent the average equipment activity over the phase. Most equipment is not expected to operate throughout the entire building construction phase; therefore, activity has been assumed to be evenly distributed over the entire phase in this analysis. Portions of the site would be paved to provide parking spaces. A conceptual construction schedule is provided in **Table 6**, *Conceptual Construction Schedule*.

The construction equipment list shown in **Table 7**, *Construction Equipment Assumptions* was derived from the default equipment assumptions contained in the CalEEMod model for commercial, general office building and default construction schedule. The activity for construction equipment is based on the horsepower and load factors of the equipment. In general, the horsepower is the power of an engine—the greater the horsepower, the greater the power. The load factor is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operates at its maximum operating capacity. This analysis uses the CalEEMod default load factors for off-road equipment.

Table 6. Conceptual Construction Schedule

Construction Phase	Start Date	End Date	Duration (days)
Demolition	3/1/22	3/26/22	20
Site Preparation	3/27/22	3/31/22	3
Grading	4/1/21	4/8/22	6
Building Construction	4/9/22	2/10/23	220
Paving	2/11/23	2/24/23	10
Architectural Coating	2/25/23	3/10/23	10

Source:
Site preparation schedule provided by the CalEEMod default estimate (see Appendix A)

Table 7. Construction Equipment Assumptions

Activity	Equipment	Number	Usage Hours	Horsepower	Load Factor
Site Preparation	Graders	1	8	187	0.41
	Scrapers	1	8	367	0.48
	Tractors/Loaders/Backhoes	1	7	97	0.37
Demolition	Concrete Industrial Saws	1	8	81	0.73
	Rubber Tired Dozers	1	8	247	0.40
	Tractors/Loaders/Backhoes	3	8	97	0.37
Grading	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.40
	Tractors/Loaders/Backhoes	2	7	97	0.37
Construction	Cranes	1	8	231	0.29
	Forklifts	2	7	89	0.20
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	1	6	97	0.37
	Welders	3	8	46	0.45
Paving	Cement and Mortar Mixes	1	8	9	0.56
	Pavers	1	8	130	0.42
	Paving Equipment	1	8	132	0.36
	Rollers	2	8	80	0.38

Table 7. Construction Equipment Assumptions					
Activity	**Equipment**	**Number**	**Usage Hours**	**Horsepower**	**Load Factor**
	Tractors/Loaders/Backhoes	1	8	97	0.37
Architectural Coating	Air Compressors	1	6	78	0.48
Note: The equipment inventory for site preparation and paving construction activities were taken from the CalEEMod default equipment inventor. The equipment inventory for the grading, building construction, paving and architectural coating was derived from model defaults with equipment hours, horsepower, and load factors taken from the CalEEMod. Source: CalEEMod, Appendix A.					

2.2.1.1. Equipment Tiers and Emission Factors

Equipment tiers refer to a generation of emission standards established by the US EPA and ARB that apply to diesel engines in off-road equipment. The "tier" of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the greater the tier it is likely to have. Excluding engines greater than 750 horsepower, Tier 1 engines were manufactured generally between 1996 and 2003. Tier 2 engines were manufactured between 2001 and 2007. Tier 3 engines were manufactured between 2006 and 2011. Tier 4 engines are the newest and some incorporate hybrid electric technology; they were manufactured after 2007 (SCAQMD 2011).

CalEEMod contains an inventory of construction equipment that incorporates estimates of the number of equipment, their age, their horsepower, and equipment tier from which rates of emissions are developed. The CalEEMod default tier mix was used in this analysis for the estimation of emissions from on-site construction equipment for the unmitigated scenario.

CalEEMod's off-road emission factors are based on the equipment populations from the OFFROAD2011 model. For the unmitigated scenario, emission factors for the applicable year of each construction phase were used.

2.2.1.2. Fugitive Dust

SCAQMD Rule 403 requires fugitive dust generating activities follow best available control measures to reduce emissions of fugitive dust. These measures are accounted for in CalEEMod as "mitigation" because the model categorizes the measures as "mitigation," even though they are technically not mitigation. The best available control measures and the associated measure in CalEEMod are displayed in **Table 8**.

Table 8. Best Available Control Measures	
Best Available Control Measure[1]	**Associated Measure in CalEEMod[2]**
Clearing and Grubbing	
02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing.	Water exposed surfaces three times per day
02-2 Stabilize soil during clearing and grubbing activities.	
02-3 Stabilize soil immediately after clearing and grubbing activities.	
Earth Moving Activities	
08-1 Pre-apply water to depth of proposed cuts	Pre-water to 12 percent
08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction	
08-3 Stabilize soils once earth-moving activities are complete	
Import/Export of Bulk Materials	
09-1 Stabilize material while loading to reduce fugitive dust emissions.	Water exposed surfaces three times per day.
09-2 Maintain at least six inches of freeboard on haul vehicles.	
09-3 Stabilize material while transporting to reduce fugitive dust emissions.	
09-4 Stabilize material while unloading to reduce fugitive dust emissions.	
09-5 Comply with Vehicle Code Section 23114.	
Landscaping	
10-1 Stabilize soils, materials, slopes	Water exposed surfaces three times per day.
Guidance: Apply water to materials to stabilize; maintain materials in a crusted condition; maintain effective cover over materials; stabilize sloping surfaces using soil until vegetation or ground cover can effectively stabilize the slopes; hydroseed prior to rain season.	
Staging Areas	
13-1 Stabilize staging areas during use by limiting vehicle speeds to 15 miles per hour.	Reduce speed on unpaved roads to 15 miles per hours.
Traffic Areas for Construction Activities	
15-1 Stabilize all off-road traffic and parking areas.	Water exposed surfaces three times per day.
15-2 Stabilize all haul routes.	
15-3 Direct construction traffic over established haul routes.	
Guidance: Apply gravel/paving to all haul routes as soon as possible to all future roadway areas; barriers can be used to ensure vehicles are only used on established parking areas/haul routes.	
1 - SCAQMD Rule 403 2 - Applied in CalEEMod output in Appendix A	

2.2.1.3. Construction Related Trips

CalEEMod default values for worker trip generation, trip length, and vehicle fleet were used in this analysis. Vendor trips were also calculated using CalEEMod default values. The CalEEMod default vehicle type (Heavy Heavy-Duty Truck) was used for haul trips.

A summary of the construction related trips is shown in **Table 9**, *Construction Related Trips*.

Table 9. Construction Related Trips			
Construction Phase	**Worker Trip Number**	**Vendor Trip Number**	**Haul Trip Number**
Site Preparation	8	0	0
Demolition	13	0	0
Grading	10	0	0
Construction	50	20	0
Paving	15	0	0
Architectural Coating	10	0	0
Source: CalEEMod, Appendix A			

2.2.2. Localized Analysis Methodology

As noted in previous Section 1.1, the assessment of localized air quality impacts during construction employed the SCAQMD's daily emission LST tables based on the location of the project, the construction area where the emissions would be generated, and the distance to the nearest sensitive receptor.

2.3. Operation

Operational emissions are those emissions that occur during operation of the Project. The major sources are summarized below.

2.3.1. Regional Emission Assumptions[2]

2.3.1.1. Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the motor vehicles that would travel to and from the project site. Information regarding the vehicle type or scheduling was not provided. CalEEMod default values were used for estimating regional emissions. However, these are not considered a part of this project.

The vehicle fleet mix is defined as the mix of motor vehicle classes (i.e., passenger cars, light duty trucks, medium- and heavy-duty trucks) active during the operation of the project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use. However, information regarding the vehicle fleet mix was not provided. CalEEMod default values were used for estimating regional emissions but are not considered a part of this project.

Daily pollutant emissions from the various mobile sources were calculated using information derived from the limited information in the project description and mobile source emission factors from the CARB EMFAC2014 mobile source emissions factor model that is embedded in the CalEEMod land use emission

[2] A Project Traffic Study was not available; all calculations in the CalEEMod relied upon default values.

model. Data from a project-specific traffic study will be necessary to better quantify the daily pollutant emissions. As such, default values were used in CalEEMod but are not considered a part of this project.

2.3.2. Other Emission Sources

2.3.2.1. Architectural Coatings (Painting)

Paints release VOC emissions. CalEEMod defaults were used.

2.3.2.2. Consumer Products

Consumer products are various solvents used in non-industrial applications, which emit VOCs during their product use. "Consumer Product" means a chemically formulated product used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. The default statewide emission factor developed for CalEEMod was calculated.

2.3.2.3. Landscape Equipment

CalEEMod estimated the landscaping equipment using the default assumptions in the model.

2.3.2.4. Electricity

There would be emissions from the power plants that would generate electricity to be used by the project (for lighting, pumping, etc.). CalEEMod defaults (emission factors for Southern California Edison) were used to estimate these emissions from the project. Electricity consumption for the project is shown below in **Table 10**, *Project Electricity Consumption*.

Table 10. Project Electricity Consumption

Scenario	Electrical Consumption (KWh/sqft/year)			Total (KWh/year)
	Title 24	Non-Title 24	Lighting	
Default CalEEMod factors – Place of Worship	2.20	5.02	2.93	530,520
Default CalEEMod factors – Parking Lot	0.00	0.00	0.35	23,520

Notes:
sqft = square feet /KWh = kilowatt hours

CalEEMod has three categories for electricity consumption: electricity that is impacted by Title-24 regulations, non-Title-24 electricity, and lighting. The Title 24 uses are defined as the major building envelope systems covered by California's Building Code, Title 24 Part 6, such as space heating, space cooling, water heating, and ventilation. Lighting is separate since it can be both part and not part of Title-24. Since lighting is not considered as part of the building envelope energy budget, CalEEMod does not consider lighting to have any further association with Title 24 references in the program. Non-Title 24 includes everything else such as appliances, break room equipment, computer servers, forklift chargers, and other electronics (none of which are a part of this project). However, the estimate of total electrical consumption calculated using default values in CalEEMod is provided.

2.3.2.5. Natural Gas

Default values contained in the CalEEMod model are a part of the estimation of regional GHG emissions.

2.3.2.6. Water

There may be GHG emissions from the use of electricity to pump water to the project. These estimates are used in the CalEEMod calculations using default values.

2.3.2.7. Solid Waste

Greenhouse gas emissions can be generated from the decomposition of solid waste. The project is not expected to generate solid waste during normal operation. However, default values in CalEEMod estimated the GHG emissions from this source but is not considered a part of this project.

2.3.2.8. Vegetation

There is no vegetation on the site as it is currently completely developed and urbanized.

2.3.3. Localized Operational Emission Assumptions

The predominant sources of local operational emissions are the motor vehicles that would access the project site. Such emissions result from the periodic (as yet undefined) use of support/maintenance vehicles for site inspections.

The estimation of the mobile source emissions requires the specification of several key pieces of information including the number of vehicle trips by vehicle type, trip travel lengths, vehicle idling time, and emission factors that define the amounts of emissions as a function of vehicle speed and distance traveled, or amount of idling time per vehicle.

3. Summary of Findings

The Western Riverside Council of Governments (WRCOG) is the Metropolitan Planning Organization (MPO) that includes the project site. WRCOG received grant funding from the Caltrans Sustainable Transportation Planning Grant Program to prepare an update and expansion to WRCOG's Subregional Climate Action Plan (CAP), branded CAP Update. The CAP Update will include a comprehensive update to greenhouse gas (GHG) inventories and GHG emissions reduction strategies for all sectors and establishes GHG targets for the year 2050 for all WRCOG member jurisdictions.

The framework will contain a comprehensive toolkit for cities' use to develop their own CAPs and set emissions targets. The CAP framework will show various strategies that can help reduce GHG emissions: promoting "green" building; improving efficiency of existing buildings; increasing the use of local clean energy generation; and others.

Note that compliance with GHG-reduction strategies may not reduce an individual project's impacts below significant levels *unless* an emissions target or threshold, based on substantial evidence has been adopted by a local agency. In the absence of a target or threshold, quantified GHG emissions may be determined to be significant and unavoidable. Alternatively, if a project demonstrates consistency with either a local CAP or with the CARB Scoping Plan (such as the percent-reduction goals described above), a finding of "less than significant" may be appropriate.

3.1. Construction Impacts

3.1.1. Equipment Exhausts and Related Construction Activities

The emission values provided in the tables below (**Table 11**) are from the CalEEMod output tables, unmitigated.

Table 11. Estimated Construction Emissions						
	Total Daily Maximum Pollutant Emissions (lbs/day)					
Construction Phase	**NOx**	**SOx**	**CO**	**ROG (VOC)**	**PM_{10}**	**$PM_{2.5}$**
2021 Year						
Site Preparation	18.3102	0.0254	11.0510	1.5832	2.3827	0.8418
Demolition	19.7356	0.0256	14.9823	2.0530	1.1873	1.0110
Grading	20.2435	0.0217	10.1371	1.8732	7.5807	4.2404
Building Construction	18.0788	0.0357	16.8992	2.3342	1.5122	0.9757
2022 Year						
Building Construction	16.5428	0.0354	16.5228	2.1273	1.3965	0.8651
Paving	9.3728	0.0195	12.2195	1.4018	0.6567	0.4955
Architectural Coating	1.4355	4.04e-003	2.1619	50.5692	0.1943	0.1121
Peak Daily	20.2435	0.0357	16.8992	50.5692	7.5807	4.2404
SCAQMD Thresholds	100	150	550	75	150	55
Significant Emissions?	**No**	**No**	**No**	**No**	**No**	**No**

Because no exceedances of any threshold for criteria pollutants are expected for construction phases that will be required for this project, no significant impacts would occur for project construction. Details of the emission factors and other assumptions are included in **Appendix A**.

3.1.2. Localized Impacts Analysis

The SCAQMD has issued guidance on applying CalEEMod results to localized impacts analyses. The sensitive receptors (residences) and corresponding distances from the construction area within the project site are identified in **Table 3**. Peak day construction emissions would result in concentrations of pollutants at the nearest sensitive receptor below the SCAQMD thresholds of significance (**Table 12**).

Table 12. Construction Localized Impacts Analysis				
Emissions Sources	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
On-Site Emissions (lbs/day)	20.2435	16.8992	7.5807	4.2404
LST Thresholds (lbs/day)	302	2178	40	10
Significant Emissions?	**No**	**No**	**No**	**No**

3.2. Regional Air Quality Impacts

3.2.1. Project Operational Emissions

Operational air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The area-source emissions from the Project may come from natural gas use, landscaping equipment, and/or solid waste disposal. Mobile source emissions may come from patron and employee vehicles and supply and delivery trucks. The project's trip generation rates, primary trips and pass-by trips percentages used are based on the CalEEMod defaults since there has not been a Traffic Impact Analysis performed for the Project. A summary of the estimated operation emissions is provided in **Table 13**, *Estimated Operational Emissions*.

Table 13. Estimated Operational Emissions

	Pollutant Emissions (lbs/day)					
Source (Onsite)	**NOx**	**SOx**	**CO**	**ROG (VOC)**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	2.10e-004	0.0000	0.0225	1.1987	8.00e-005	8.00e-005
Energy Sources	0.4561	2.74e-003	0.3832	.0502	0.0347	0.0347
Mobile Sources	13.6506	0.1095	30.2344	2.8025	8.7679	2.4026
Peak Daily	14.1069	0.1122	30.6401	4.0513	8.8027	2.4374
SCAQMD Thresholds	55	150	550	55	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

3.2.2. Localized Impact Analysis

The calculated emissions for the proposed operational activities compared with the appropriate LSTs is shown in **Table 14**, *Estimated Operational Localized Impacts Analysis*. By design, the localized impacts analysis only includes on-site sources; however, CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. Nonetheless, the Project generated emissions are well below the LST Thresholds.

Table 14. Estimated Operational Localized Impacts Analysis

Emissions Sources	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
On-Site Emissions (lbs/day)	14.1069	30.6401	8.8027	2.4374
LST Thresholds (lbs/day)	302	2178	10	3
Significant Emissions?	**No**	**No**	**No**	**No**

3.3. Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated as followings:

A. Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, neither short-term construction impacts, nor long-term operations will result in significant impacts based on the SCAQMD regional and local thresholds of significance.

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

B. Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2016-2040 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2016, includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the County of Riverside defines the assumptions that are represented in the AQMP.

The proposed project is currently zoned as Residential Agricultural (R-A-1) and Conservation Land (W-2-10). The R-A-1 zone can be developed with a public use permit. The W-2-10 zone cannot be developed. The proposed project will develop the R-A-1 zoned parcel. The proposed project is consistent with the current land use designations and zoning. Therefore, it is not anticipated that the project would exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a **less than significant impact** will occur.

3.4. Greenhouse Gas Emissions

3.4.1. Construction Greenhouse Gas Emissions

Construction activities produce combustion emissions from various sources (e.g., demolition, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew). Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. The annual CO_2 emissions for each of the planned construction phases (see **Appendix A** for details) is provided in **Table 15**, *Estimated Construction Greenhouse Gas Emissions*.

Table 15. Estimated Construction Greenhouse Gas Emissions

Construction Phase	Peak Annual Emissions (MT/yr)				Total Emissions/Year ($MTCO_2e$)
	CO_2	CH_4	N_2O	Total CO_2e	
2021					
Construction	321.9445	0.0514	0.0000	323.2300	323.2300
2022					
Construction	53.9951	8.98e-003	0.0000	54.2195	54.2195
Total Construction Emissions					**377.4495**
Total Construction Emissions Amortized Over 30 years					**12.5817**

3.4.2. Operational Greenhouse Gas Emissions

Operation of the proposed Project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with on-site facilities and customers and employees to the project site. Area-source emissions would be associated with activities including landscaping and maintenance of proposed land uses, natural gas for heating, and other sources. Increases in stationary-source emissions would also occur at off-site utility providers because of demand for electricity, natural gas, and water by the proposed uses.

The GHG emission estimates associated with the level of proposed development is provided in **Table 16**, *Estimated Operational Greenhouse Gas Emissions*. Area sources include architectural coatings and landscaping. Energy sources include natural gas consumption. Refer to **Appendix A** for CalEEMod outputs.

Table 16. Estimated Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
Operational	983.0117	3.6700	4.56e-003	1,076.1211
Total Operational Emissions				1,076.12
SCAQMD Draft Screening Threshold				**3,000**
Exceeds Threshold?				**No**
Total Operational Emissions Amortized Over 30 years				**35.8707**
Notes: MT/yr = metric tons per year				

As stated previously, the SCAQMD's tier 3 thresholds used Executive Order S-3-05 goal as the basis for deriving the screening level. The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which was phased in starting in 2012.

Projects whose emissions meet the threshold for compliance with Executive Order S-3-05, would also comply with the goals of AB 32 and the County of Riverside. Additionally, if a project meets the current interim emissions targets/thresholds established by SCAQMD (as described in Section V, Air Quality Standards), the project would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 mandated by SB-32. Furthermore, all of the post 2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the project will be required to comply with these regulations as they come into effect.

At a level of 1,076.12 $MTCO_2e$ per year, the GHG emissions of the proposed project do not exceed SCAQMD thresholds and are in compliance with the reduction goals of Riverside County, AB-32 and SB-32. Therefore, the proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and impacts are considered to be **less than significant**.

4. Climate Action Plan Analysis

4.1. Introduction

The purpose of this Climate Action Plan (CAP) analysis is to provide a framework from which to evaluate the potential for impacts related to the proposed project with respect to the emission of greenhouse gases (GHG). In this section reference is made to the Riverside County Climate Action Plan and Update (2019) with respect to implementation of a number of sustainability and conservation efforts that seeks to continue those efforts through local planning and partnerships. The goal for Riverside County is to use energy more efficiently, harnessing renewable energy to power buildings, recycling waste, and enhancing access to sustainable transportation modes, as well as keeping dollars in its local economy, create new green jobs, and improve the community's health, safety, and welfare in addition to addressing climate change.

4.2. Methodology

As stated in the Riverside County CAP Update (2019), the California Air Resources Board (ARB) developed a climate change scoping plan in response to the State of California adopting Assembly Bill (AB) 32 in 2006. The ARB scoping plan included directives for local governments to reduce GHG emissions associated with

land use 15 percent below baseline levels by 2020. In response, Riverside County adopted its first CAP in 2015 that included GHG inventories of community-wide and municipal sources using the baseline data for the year 2008. The 2015 CAP included the GHG reduction target of 15 percent below 2008 levels by 2020. The inventory baseline year 2008, was established as a starting point against which other inventories may be compared and targets may be set and was the earliest year with a full emissions inventory. As recommended in the AB 32 Scoping Plan, the County had set a target to reduce emissions back to 1990 levels by the year 2020. Based on the County's socio-economic growth projections per the 2015 General Plan Update, this target was calculated as a 15 percent decrease from 2008 levels by 2020 and was determined sufficient for the County to meet the AB 32 target. The most recent inventory has the most relevant data for planning purposes, whereas multiple inventory years provide context and may help identify trends or anomalies in the community emissions.

Following challenges to the 2015 CAP by interested parties, a settlement agreement was entered into in 2017 that included commitments to solar, EV chargers, LED traffic lights and periodic updates that enhances the CAP goals and maintains the County's Land Use authority. Since the 2015 CAP adoption and 2017 Settlement Agreement, new legislation and several policies have been proposed, such as Executive Order (EO) B-30-15 and SB 32 that extended the goals of AB 32 and set a 2030 goal of reducing emissions to 40 percent below 1990 levels by 2030. Further, the emissions reduction target of 40 percent below 1990 levels by 2030 is an interim-year goal to make is possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050 (CAP Update 2019).

The CAP Update (2019) re-evaluates the County's GHG reduction targets and existing reduction strategies. The new goals and supporting measures are proposed to reflect and ensure compliance with changes in the local and State policies and regulations such as SB 32 and California's 2017 Climate Change Scoping Plan. The GHG inventories, based on the most recent data available for the year 2017, are calculated, and the future growth in emissions for the Business-As-Usual (BAU) and Adjusted BAU (ABAU) scenarios (the ABAU scenario takes into account the State policies) for the years 2020, 2030, and 2050 being projected. Sources of emissions include on-road and off-road transportation, agriculture, electricity and natural gas use, landscaping, water and wastewater pumping and treatment, and treatment and decomposition of solid waste.

The CAP Update (2019) summarizes various State and local policies that will contribute to reduced GHG emissions in Riverside County by the year 2020 and beyond. Some of these policies include updated building codes for energy efficiency, the low carbon fuel standard, Pavley (California Assembly Bill) vehicle emissions standards, and the Renewable Portfolio Standards for utility companies. By supporting the State in the implementation of these measures, Riverside County will experience substantial GHG emissions reductions. In order to reach the reduction target, the County of Riverside would also need to implement the additional local reduction measures. These measures encourage energy efficiency and renewable energy, development and penetration of zero-emission vehicles (ZEVs), water conservation, and increased waste diversion. In addition to local government, efforts at the local business and community level would be required to achieve these targets. Public education and outreach would play a crucial role in educating stakeholders about the importance of implementing these measures.

This CAP Update (2019) describes Riverside County's GHG emissions for the year 2017, projects how these emissions will increase into 2020, 2030, and 2050, and includes strategies to reduce emissions to

a level consistent with the State of California's emissions reduction targets. These strategies complement Riverside County's General Plan policies and are consistent with Riverside County's vision for a more sustainable community.

4.3. Greenhouse Gas Emissions Inventory

The community-wide inventory represents all emissions from sources located within the unincorporated areas of Riverside County. Therefore, the government operations emissions are a subset of the community-wide inventory presented here. In Riverside County in 2017, a total of 4,905,518 MT CO_2e emissions were emitted in the community as a whole (CAP Update 2019). Data for the community-wide inventory were gathered from various Riverside County departments, SCE, IID, Anza, SoCalGas, and additional reports. The largest portion of Riverside County's 2017 emissions were from transportation followed by agriculture (34 percent), and electricity and natural gas use in buildings (24 percent). The 2017 County emissions of CO_2e broken down by category is provided in **Table 17**, *2017 Community-Wide GHG Emissions by Source*.

Table 17. 2017 Community-Wide GHG Emissions by Source

Emissions Category	Metric Tons of CO_2e
On-Road Transportation	1,766,784
Agriculture	1,670,954
Energy (Electricity and Natural Gas)	1,188,138
Solid Waste	204,365
Water and Wastewater	44,606
Aviation	26,786
Off-Road Sources	3,883
Total	**4,905,518**

CO_2e = carbon dioxide equivalent
GHG = greenhouse gas

Source: CAP Update 2019, Table 3-2

According to the CAP Update (2019), the State has set goals for reducing GHG emissions by the year 2020, 2030, and 2050 through AB 32, EO S-3- 05, and EO B-30-15, respectively. The State has also provided guidance to local jurisdictions as "essential partners" in achieving the State's goals by identifying a 2020 recommended reduction goal. That goal, stated in the AB 32 Scoping Plan, was for local governments to achieve a 15 percent reduction below 2005 to 2008 annual emissions levels by year 2020, which aligns with the State's goal of not exceeding 1990 annual emissions levels by year 2020. The State's long-term target is to emit no more than 20 percent of 1990 annual emissions levels by year 2050 (or a reduction of 80 percent below 1990 annual emissions levels by year 2050). The State has also provided an interim target, which is 40 percent below 1990 annual emissions levels by year 2030. It is clear that the issue of climate change will not end in 2030 and continued reduction goals should be implemented to keep the State on a path toward the 2050 goal.

In order to keep the County CAP in line with the State's reduction goals, emissions targets have been set. In the year 2020, the County would not need to make any additional CO_2e emissions reductions, as State and local policies will be sufficient to meet the targets. However, in the year 2030, Riverside County would need to reduce emissions by 525,511 MT CO_2e annually below the Adjusted Business as Usual (ABAU) scenario to meet the State-aligned target. In 2050, the County would need to reduce emissions by 2,982,947 MT CO_2e annually below the ABAU scenario to meet the State-aligned target. Table 3-6 (State-Aligned GHG Emissions Reduction Targets by Year) show the reduction targets and additional

reductions needed to meet these targets is provided in **Table 18**, *State-Aligned GHG Emissions Reduction Targets by Year*.

Table 18. State-Aligned GHG Emissions Reduction Targets by Year

Sector	2008	2017	2020	2030	2050
BAU Emissions (MT CO_2e)	7,012,938	4,905,518	5,185,305	6,368,781	11,305,026
ABAU Emissions (MT CO_2e)	-	-	4,861,256	4,102,109	4,175,146
State-Aligned Target (% change from 1990)	-	-	0	-40	-80
State-Aligned Target (% change from 2008)	-	-	-15	-49	-83
State-Aligned Target (MT CO_2e)	-	-	5,960,997	3,576,598	1,192,199
Reductions from ABAU needed to meet the Target (MT CO_2e)	-	-	Target Met	525,511	2,982,947

Note: [1] Baseline (2008) emissions are from the County of Riverside's 2015 Climate Action Plan GHG inventory.
[2] Reduction targets calculation details are provided in Appendix A.
ABAU = Adjusted Business-as-Usual
BAU = Business-as-Usual
GHG = greenhouse gas
MT CO_2e = metric tons of carbon dioxide equivalent

Source: CAP Update 2019, Table 3-6

4.4. Greenhouse Gas Reduction Programs and Policies

As noted in the CAP Update (2019), policies to reduce GHG emissions often overlap with policies addressing energy conservation, reduced automobile use, water conservation, and many other issues. In addition to policies specifically targeting GHG emissions, Riverside County has many General Plan policies that help reduce GHG emissions while targeting other policies applicable to Riverside County.

The State of California has set specific targets for reducing GHG emissions from the burning of fossil fuels in both power plants and vehicles by adopting various regulations. In addition, State energy efficiency and renewable requirements provide another level of reductions. In order to provide credit to Riverside County for regulatory actions already taken or planned by the State of California, GHG reductions that will occur within Riverside County as a result of these actions are evaluated. These are identified in the CAP Update as R1 reduction measures (CAP Update 2019). The R1 measures do not require additional local actions but should be accounted for in the County's emissions forecasts to provide a more accurate picture of future emissions and the level of local actions needed to reduce emissions to the State-aligned target levels. In addition, R2 measures are those measures that either can be quantified to show the value of the reduction from the incorporation of those measures, or the supportive measures or methods of implementation for the quantifiable measures. The R2 reduction measures will be incorporated at the County level to provide additional reductions in GHG emissions.

The CAP Update (2019) summarizes various State and local policies that will contribute to reduced GHG emissions in Riverside County by the year 2020 and beyond. Some of these policies include updated building codes for energy efficiency, the low carbon fuel standard, Pavley (California Assembly Bill) vehicle emissions standards, and the Renewable Portfolio Standards for utility companies. By supporting the State in the implementation of these measures, Riverside County expects to experience substantial GHG emissions reductions. In order to reach the reduction target, the County of Riverside would also need to implement the additional local reduction measures. These measures encourage energy efficiency and renewable energy, development, and penetration of zero-emission vehicles (ZEVs), water conservation, and increased waste diversion. In addition to local government, efforts at the local business and community level would be required to achieve these targets. Public education and outreach

would play a crucial role in educating stakeholders about the importance of implementing these measures.

The post 2030 reduction targets identified in the CAP Update (2019) may need adjustments based on State updates and guidance when the State sets new reduction goals. As 2030 approaches, Riverside County would have implemented the first two phases of the CAP Update and would have a better understanding of the effectiveness and efficiency of the reduction strategies toward achieving the current 2050 GHG reduction target. Furthermore, the federal, State, and local (County level) programs and policies for GHG reductions in the near term (2020-2030) are likely to be well underway; and continuing technological change in the fields of energy efficiency, alternative energy generation, vehicles, fuels, methane capture, and other areas will occur. Riverside County will then be able to take the local, regional, State, and federal context into account and may consider updating the GHG reduction targets for the period between 2030 and 2050.

According to the CAP Update (2019), after 2020, GHG emissions would continue to increase; however, the growth in Riverside County's future emissions would be offset by the reductions from incorporation of State and local policies. The additional reduction measures included in the CAP Update have been developed to meet the reduction targets for the year 2020 and beyond; however, the implementation of the CAP Update would require periodic updates to ensure that Riverside County is continually tracking GHG emissions and making adjustments as necessary to ensure that future targets are met. It is important to note that post 2030, the amount of reductions needed to meet the 2050 targets would be 73 percent below BAU. The proposed State and local measures that will continue beyond 2030 are expected to yield significant reductions. However, as discussed previously, the policy and regulatory landscape beyond 2030 (for example, Senate Bill 1008, which requires 100 percent renewables by 2045) and technological innovations will require a re-consideration of the future GHG reduction targets.

The projected comparison of 2030 and 2050 GHG emissions for Riverside County is summarized in **Table 19**, *Projected 2030 and 2050 GHG Emissions Comparison*. This projected comparison is based on the anticipated growth rates included in Riverside County's General Plan update. The reductions needed to meet the County's 2030 and 2050 goals are also summarized.

Table 19. Projected 2030 and 2050 GHG Emissions Comparison

Source Category	Metric Tons of CO_2e						
	2017	2030 BAU	2030 ABAU	% Change (2017-2030 ABAU)	2050 BAU	2050 ABAU	% Change (2017-2050 ABAU)
Transportation (on-road)	1,766,784	3,018,767	1,361,200	-22.9	6,882,509	1,174,310	-33.5
Agriculture	1,670,954	1,262,044	1,261,044	-24.5	817,858	817,858	-51.0
Electricity	712,928	1,017,153	466,971	-34.5	1,756,843	480,289	-32.6
Natural Gas	475,211	676,742	652,578	37.3	1,165,761	1,104,421	132.0
Solid Waste	204,365	298,585	298,585	46.1	533,154	533,154	160.8
Water and Waste Water	44,606	65,171	30,413	-31.8	116,370	32,584	-26.9
Aviation	26,786	26,786	26,786	0.0	26,786	26,786	0.0
Off-Road Sources	3,883	4,531	4,531	16.6	5,744	5,744	47.9
Total	**4,905,518**	**6,368,781**	**4,102,109**	**-16.3**	**11,305,026**	**4,175,146**	**-14.8**
Reduction Target[1]	-	**49% below 2008 levels**	**525,511** (Reductions needed)	-	**83% below 2008 levels**	**2,982,947** (Reductions needed)	-

Note: Mass emissions of CO_2e shown in the table are rounded to the nearest whole number. Totals shown may not add up due to rounding.
[1] The reduction targets for 2030 and 2050 are based on 49% and 83% decreases from Riverside County's 2008 emissions inventory, respectively.
BAU = Business-as-Usual
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas

Source: CAP Update 2019, Table ES-2

In order to meet these GHG emission goals, a number of programs and policies will be implemented in the areas of transportation, energy efficiency, clean energy, reducing heat island effects, water efficiency, and solid waste. These are identified and described in detail in the County of Riverside CAP Update (2019). A variety of measures to reduce, eliminate, or replace GHG emission generating activities are proposed to facilitate compliance with existing regulations and future proposed. Typical measures include but are not limited to more fuel-efficient vehicles, reduction in automobile use, increase in public transportation and ride sharing, alternative transportation options, energy efficient structures, energy efficiency public awareness, use of clean energy alternatives, increased tree planting, use of light reflecting materials, water efficiency strategies, and reduction is solid waste generation.

4.5. Total Estimated Reductions

According to the Riverside County CAP Update (2019), a total of 5,158,305 MT CO_2e in 2020, 6,368,781 MT CO_2e in 2030, and 11,305,026 MT CO_2e in 2050 without the incorporation of reduction measures under the BAU forecast are projected to be emitted. Under the ABAU forecast, the State-wide reduction measures would reduce the GHG emissions to 4,861,256 MT CO_2e in 2020, 4,102,109 MT CO_2e in 2030, and 4,175,146 MT CO_2e in 2050. Because the 2020 ABAU emissions are below the State-aligned target, no local reduction measures were proposed or quantified for 2020. With implementation of the local reduction (R2) measures. Riverside County emissions would be reduced to 2,434,649 MT CO_2e in 2030 and 562,730 MT CO_2e in 2050.

A summary of the GHG emissions reductions for each of the local (R2) measures proposed in the County of Riverside CAP Update (2019) is provided in **Table 20**, *R2 Measures and Associated Emissions Reduced from 2030 and 2050 Inventories*.

Table 20. R2 Measures and Associated Emissions Reduced from 2030 and 2050 Inventories

	2030 MT CO_2e Reductions	2030 % of BAU Emissions	2050 MT CO_2e Reductions	2050 % of BAU Emissions
Transportation				
R2-T1: Alternative Transportation Options	161,932	2.5	368,711	3.3
R2-T2: Adopt and Implement A Bicycle Master Plan to Expand Bike Routes Around the County	2,234	<0.1	5,086	<0.1
R2-T3: Ride-Sharing and Bike-to-Work Programs within Businesses	182,846	2.9	416,332	3.7
R2-T4: Electrify the Fleet	274,370	4.3	624,729	5.5
Transportation Total	**621,382**	**9.8**	**1,414,858**	**12.5**
Energy				
R2-EE1: Energy Efficiency Training, Education, and Recognition in the Residential Sector	-[1]	-	-	-
R2-EE2: Increase Community Participation in Existing Energy Efficiency Programs	16,845	0.3	28,091	0.2
R2-EE3: Home Energy Evaluations	-[1]	-	-	-
R2-EE4: Residential Home Energy Renovations	11,749	0.2	19,592	0.2
R2-EE5: Exceed Energy Efficiency in New Residential Units	39,408	0.6	318,632	2.8
R2-EE6: Energy Efficiency Training, Education, and Recognition in Commercial Sector	-[1]	-	-	-
R2-EE7: Increase Business Participation in Existing Energy Efficiency Programs	31,878	0.5	67,730	0.6
R2-EE8: Non-Residential Building Energy Audits	-[1]	-	-	-
R2-EE9: Non-Residential Building Retrofits	173,554	2.7	368,747	3.3
R2-EE10: Energy Efficiency Enhancement of Existing and New Infrastructure	-[1]	-	-	-
R2-EE11: Exceed Energy Efficiency in New Commercial Units	33,418	0.5	580,161	5.1
Energy Total	**306,851**	**4.8**	**1,382,953**	**12.2**
Clean Energy				
R2-CE1: Clean Energy	34,204	0.5	34,204	0.3
R2-CE2: Community Choice Aggregation Program Reductions (If Implemented)	609,022	9.6	609,022	5.4
Clean Energy Total	**643,226**	**10.1**	**643,226**	**5.7**
Advanced Measures				
R2-L1: Tree Planting for Shading and Energy Saving	13	<0.1	22	<0.1
R2-L2: Light-Reflecting Surfaces for Energy Saving	1,845	<0.1	3,294	<0.1
Advanced Measures Total	**13**	**<0.1**	**22**	**<0.1**
Water Efficiency				
R2-W1: Water Efficiency through Enhanced Implementation of Senate Bill X7-7	5,666	0.1	10,114	0.1
R2-W2: Exceed Water Efficiency Standards	116	<0.1	206	<0.1
Water Efficiency Total	**5,781**	**0.1**	**10,320**	**0.1**
Solid Waste				
R2-W1: Reduce Waste to Landfills	88,362	1.4	157,742	1.4
Solid Waste Total	88,362	1.4	157,742	1.4
Total Reductions	**1,667,460**	**26.2**	**3,612,416**	**32.0**

[1] Supportive measure. No GHG reductions were calculated.
BAU = business-as-usual
MT CO_2e = metric ton carbon dioxide equivalent

Source: CAP Update 2019, Table 5-1

Additionally, the CAP Update (2019) indicates that by 2030, the State-wide and local measures together would reduce the Riverside County's community GHG emissions from the 2030 BAU level to 2,434,649 MT CO_2e, which exceeds the 49 percent below 2008 levels reduction target of 3,576,598 MT CO_2e for 2030. In 2050, implementation of State-wide and local measures together would reduce emissions from the 2050 BAU level to 562,730 MT CO_2e, which exceeds the 83 percent below 2008 levels reduction target of 1,192,199 MT CO_2e for 2050. A summary of the baseline 2008 community-wide emissions, the projected 2020, 2030, and 2050 emission inventories, as well as the reduced 2030 and 2050 inventories

after implementation of the reduction measures for community operations is provided in **Table 21**, *Community-Wide Emissions and Targets Comparison*.

Table 21, Community-Wide Emissions and Targets Comparison.

	2008 MT CO_2e	2017 MT CO_2e	2020 MT CO_2e	2030 MT CO_2e	2050 MT CO_2e
BAU Emissions	7,012,938	4,905,518	5,158,305	6,368,781	11,305,026
Reduction Target	--	--	5,960,997	3,576,598	1,192,199
State and Federal Reductions	--	--	297,049	2,266,672	7,129,879
Local Measures Reductions	--	--	--	1,667,460	3,612,416
Total Adjusted Emissions	--	--	4,861,256	2,434,649	562,730
Additional Reductions Needed	--	--	Target Met	Target Met	Target Met

BAU = Business-as-Usual
MT CO_2e = metric tons of carbon dioxide equivalent

Source: CAP Update 2019, Table 5-2

5. References

CalEEMod. 2017. California Emissions Estimator Model. Version 2016.3.2. Website: http://caleemod.com/.

California Air Resources Board (CARB). 2014. EMFAC2014 Web Database. Website: http://www.arb.ca.gov/emfac/2014/. Accessed July 2020.

CAP Update. 2019. Climate Action Plan Update. County of Riverside. November 2019.

SCAQMD. 2003. South Coast Air Quality Management District White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. Website: http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative impacts-working-group/cumulative-impacts-white-paper.pdf?sfvrsn=2.

SCAQMD. 2009. Final Localized Significance Threshold Methodology, Appendix C-1, 2006-2008 Thresholds for Construction and Operation with Gradual Conversion of N0x to $N0_2$. South Coast Air Quality Management District, Revised October 21, 2009.

SCAQMD. 2011. South Coast Air Quality Management District Portable Engine Tier Ratings.Website: http://www.aqmd.gov/comply/PERP/tier.htm. Accessed July 2020.

SCAQMD. 2012. South Coast Air Quality Management District Air Quality Significance Thresholds. Website: http://www.aqmd.gov/ceqa/handbook/signthres.pdf.

SCAQMD. 2019. South Coast Air Quality Management District Air Quality Significance Thresholds; Toxic Air Contaminants, Odor, and GHG Thresholds; and Ambient Air Quality Standards for Criteria Pollutants. Revised April 2019.

APPENDIX A

CalEEMod

Lake Mathews Temple

South Coast AQMD, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	52.27	1000sqft	1.20	52,268.00	0
Parking Lot	168.00	Space	1.51	67,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics -

Land Use -

2.0 Peak Daily Emissions

Peak Daily Construction Emissions

Lake Mathews Temple - South Coast AQMD Air District, Summary Report

Peak Daily Construction Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
Year	Phase	lb/day											
2021	Demolition	2.0530 W	19.7356 W	14.9823 S	0.0256 S	1.1873 S	1.0110 S	2.0530 W	19.7356 W	14.9823 S	0.0256 S	1.1873 S	1.0110 S
2021	Site Preparation	1.5832 W	18.3102 W	11.0510 S	0.0254 S	2.3827 S	0.8418 S	1.5832 W	18.3102 W	11.0510 S	0.0254 S	2.3827 S	0.8418 S
2021	Grading	1.8732 W	20.2435 W	10.1371 S	0.0217 S	7.5807 S	4.2404 S	1.8732 W	20.2435 W	10.1371 S	0.0217 S	7.5807 S	4.2404 S
2021	Building Construction	2.3342 W	18.0788 W	16.8992 S	0.0357 S	1.5122 W	0.9757 W	2.3342 W	18.0788 W	16.8992 S	0.0357 S	1.5122 W	0.9757 W
2022	Building Construction	2.1273 W	16.5428 W	16.5228 S	0.0354 S	1.3965 W	0.8651 W	2.1273 W	16.5428 W	16.5228 S	0.0354 S	1.3965 W	0.8651 W
2022	Paving	1.4018 W	9.3728 W	12.2195 S	0.0195 S	0.6567 S	0.4955 S	1.4018 W	9.3728 W	12.2195 S	0.0195 S	0.6567 S	0.4955 S
2022	Architectural Coating	50.5692 W	1.4355 W	2.1619 S	4.0400e-003 S	0.1943 S	0.1121 S	50.5692 W	1.4355 W	2.1619 S	4.0400e-003 S	0.1943 S	0.1121 S
	Peak Daily Total	50.5692 W	20.2435 W	16.8992 S	0.0357 S	7.5807 S	4.2404 S	50.5692 W	20.2435 W	16.8992 S	0.0357 S	7.5807 S	4.2404 S
	Air District Threshold												
	Exceed Significance?												

Peak Daily Operational Emissions

Peak Daily Operational Emissions

Lake Mathews Temple - South Coast AQMD Air District, Summary Report

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	1.1987 S	2.1000e-004 S	0.0225 S	0.0000 S	8.0000e-005 S	8.0000e-005 S	1.1987 S	2.1000e-004 S	0.0225 S	0.0000 S	8.0000e-005 S	8.0000e-005 S
On-Site	Energy	0.0502 S	0.4561 S	0.3832 S	2.7400e-003 S	0.0347 S	0.0347 S	0.0502 S	0.4561 S	0.3832 S	2.7400e-003 S	0.0347 S	0.0347 S
Off-Site	Mobile	2.8025 S	13.6506 W	30.2344 S	0.1095 S	8.7679 W	2.4026 W	2.8025 S	13.6506 W	30.2344 S	0.1095 S	8.7679 W	2.4026 W
	Peak Daily Total	4.0513 S	14.1069 W	30.6401 S	0.1122 S	8.8027 W	2.4374 W	4.0513 S	14.1069 W	30.6401 S	0.1122 S	8.8027 W	2.4374 W
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Construction	2021	321.9445	0.0514	0.0000	323.2300	321.9442	0.0514	0.0000	323.2297
Construction	2022	53.9951	8.9800e-003	0.0000	54.2195	53.9950	8.9800e-003	0.0000	54.2195
Operational	2022	983.0117	3.6700	4.5600e-003	1,076.1211	983.0117	3.6700	4.5600e-003	1,076.1211
	Total								
	Significance Threshold								
	Exceed Significance?								

Lake Mathews Temple

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	52.27	1000sqft	1.20	52,268.00	0
Parking Lot	168.00	Space	1.51	67,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2491	2.0157	1.7993	3.7300e-003	0.0884	0.0930	0.1814	0.0283	0.0887	0.1170	0.0000	321.9445	321.9445	0.0514	0.0000	323.2300
2022	0.2903	0.2944	0.3096	6.3000e-004	0.0112	0.0132	0.0243	3.0000e-003	0.0125	0.0155	0.0000	53.9951	53.9951	8.9800e-003	0.0000	54.2195
Maximum	**0.2903**	**2.0157**	**1.7993**	**3.7300e-003**	**0.0884**	**0.0930**	**0.1814**	**0.0283**	**0.0887**	**0.1170**	**0.0000**	**321.9445**	**321.9445**	**0.0514**	**0.0000**	**323.2300**

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	0.2491	2.0157	1.7993	3.7300e-003	0.0884	0.0930	0.1814	0.0283	0.0887	0.1170	0.0000	321.9442	321.9442	0.0514	0.0000	323.2297
2022	0.2903	0.2944	0.3096	6.3000e-004	0.0112	0.0132	0.0243	3.0000e-003	0.0125	0.0155	0.0000	53.9950	53.9950	8.9800e-003	0.0000	54.2195
Maximum	**0.2903**	**2.0157**	**1.7993**	**3.7300e-003**	**0.0884**	**0.0930**	**0.1814**	**0.0283**	**0.0887**	**0.1170**	**0.0000**	**321.9442**	**321.9442**	**0.0514**	**0.0000**	**323.2297**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	0.6869	0.6869
2	6-1-2021	8-31-2021	0.6697	0.6697
3	9-1-2021	11-30-2021	0.6631	0.6631
4	12-1-2021	2-28-2022	0.6276	0.6276
5	3-1-2022	5-31-2022	0.1857	0.1857
		Highest	0.6869	0.6869

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	0.2186	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4700e-003	5.4700e-003	1.0000e-005	0.0000	5.8300e-003
Energy	9.1600e-003	0.0832	0.0699	5.0000e-004		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	267.1508	267.1508	9.0200e-003	3.1700e-003	268.3209
Mobile	0.1697	0.9126	1.9168	6.9100e-003	0.5600	5.5600e-003	0.5656	0.1501	5.1900e-003	0.1553	0.0000	639.0170	639.0170	0.0328	0.0000	639.8367
Waste						0.0000	0.0000		0.0000	0.0000	60.4791	0.0000	60.4791	3.5742	0.0000	149.8345
Water						0.0000	0.0000		0.0000	0.0000	0.5189	15.8404	16.3592	0.0540	1.3900e-003	18.1232
Total	**0.3975**	**0.9958**	**1.9896**	**7.4100e-003**	**0.5600**	**0.0119**	**0.5719**	**0.1501**	**0.0115**	**0.1616**	**60.9980**	**922.0137**	**983.0117**	**3.6700**	**4.5600e-003**	**1,076.1211**

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	0.2186	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4700e-003	5.4700e-003	1.0000e-005	0.0000	5.8300e-003
Energy	9.1600e-003	0.0832	0.0699	5.0000e-004		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	267.1508	267.1508	9.0200e-003	3.1700e-003	268.3209
Mobile	0.1697	0.9126	1.9168	6.9100e-003	0.5600	5.5600e-003	0.5656	0.1501	5.1900e-003	0.1553	0.0000	639.0170	639.0170	0.0328	0.0000	639.8367
Waste						0.0000	0.0000		0.0000	0.0000	60.4791	0.0000	60.4791	3.5742	0.0000	149.8345
Water						0.0000	0.0000		0.0000	0.0000	0.5189	15.8404	16.3592	0.0540	1.3900e-003	18.1232
Total	**0.3975**	**0.9958**	**1.9896**	**7.4100e-003**	**0.5600**	**0.0119**	**0.5719**	**0.1501**	**0.0115**	**0.1616**	**60.9980**	**922.0137**	**983.0117**	**3.6700**	**4.5600e-003**	**1,076.1211**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
2	Site Preparation	Site Preparation	3/27/2021	3/31/2021	5	3	
3	Grading	Grading	4/1/2021	4/8/2021	5	6	
4	Building Construction	Building Construction	4/9/2021	2/10/2022	5	220	
5	Paving	Paving	2/11/2022	2/24/2022	5	10	
6	Architectural Coating	Architectural Coating	2/25/2022	3/10/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.51

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 78,402; Non-Residential Outdoor: 26,134; Striped Parking Area: 4,032 (Architectural Coating – sqft)

OffRoad Equipment

Lake Mathews Temple - South Coast AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	50.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
Total	**0.0199**	**0.1970**	**0.1449**	**2.4000e-004**		**0.0104**	**0.0104**		**9.7100e-003**	**9.7100e-003**	**0.0000**	**21.0713**	**21.0713**	**5.3900e-003**	**0.0000**	**21.2060**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.0000e-004	4.5300e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2424	1.2424	3.0000e-005	0.0000	1.2432
Total	**5.4000e-004**	**4.0000e-004**	**4.5300e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2424**	**1.2424**	**3.0000e-005**	**0.0000**	**1.2432**

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	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
Total	**0.0199**	**0.1970**	**0.1449**	**2.4000e-004**		**0.0104**	**0.0104**		**9.7100e-003**	**9.7100e-003**	**0.0000**	**21.0713**	**21.0713**	**5.3900e-003**	**0.0000**	**21.2060**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.0000e-004	4.5300e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2424	1.2424	3.0000e-005	0.0000	1.2432
Total	**5.4000e-004**	**4.0000e-004**	**4.5300e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2424**	**1.2424**	**3.0000e-005**	**0.0000**	**1.2432**

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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.3200e-003**	**0.0274**	**0.0161**	**4.0000e-005**	**2.3900e-003**	**1.0500e-003**	**3.4400e-003**	**2.6000e-004**	**9.7000e-004**	**1.2300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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	5.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1147	0.1147	0.0000	0.0000	0.1148
Total	**5.0000e-005**	**4.0000e-005**	**4.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1147**	**0.1147**	**0.0000**	**0.0000**	**0.1148**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.3200e-003**	**0.0274**	**0.0161**	**4.0000e-005**	**2.3900e-003**	**1.0500e-003**	**3.4400e-003**	**2.6000e-004**	**9.7000e-004**	**1.2300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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	5.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1147	0.1147	0.0000	0.0000	0.1148
Total	**5.0000e-005**	**4.0000e-005**	**4.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1147**	**0.1147**	**0.0000**	**0.0000**	**0.1148**

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					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
Total	**5.4800e-003**	**0.0606**	**0.0293**	**6.0000e-005**	**0.0197**	**2.7500e-003**	**0.0224**	**0.0101**	**2.5300e-003**	**0.0126**	**0.0000**	**5.4312**	**5.4312**	**1.7600e-003**	**0.0000**	**5.4751**

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	1.3000e-004	9.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2867	0.2867	1.0000e-005	0.0000	0.2869
Total	**1.3000e-004**	**9.0000e-005**	**1.0500e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2867**	**0.2867**	**1.0000e-005**	**0.0000**	**0.2869**

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					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
Total	**5.4800e-003**	**0.0606**	**0.0293**	**6.0000e-005**	**0.0197**	**2.7500e-003**	**0.0224**	**0.0101**	**2.5300e-003**	**0.0126**	**0.0000**	**5.4312**	**5.4312**	**1.7600e-003**	**0.0000**	**5.4751**

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	1.3000e-004	9.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2867	0.2867	1.0000e-005	0.0000	0.2869
Total	**1.3000e-004**	**9.0000e-005**	**1.0500e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2867**	**0.2867**	**1.0000e-005**	**0.0000**	**0.2869**

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	0.1953	1.5306	1.3908	2.3900e-003		0.0781	0.0781		0.0748	0.0748	0.0000	198.3045	198.3045	0.0390	0.0000	199.2799
Total	**0.1953**	**1.5306**	**1.3908**	**2.3900e-003**		**0.0781**	**0.0781**		**0.0748**	**0.0748**	**0.0000**	**198.3045**	**198.3045**	**0.0390**	**0.0000**	**199.2799**

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	5.4300e-003	0.1848	0.0458	4.8000e-004	0.0120	3.7000e-004	0.0124	3.4700e-003	3.6000e-004	3.8300e-003	0.0000	46.6320	46.6320	2.9500e-003	0.0000	46.7057
Worker	0.0199	0.0147	0.1664	5.0000e-004	0.0524	3.9000e-004	0.0528	0.0139	3.6000e-004	0.0143	0.0000	45.6328	45.6328	1.2200e-003	0.0000	45.6634
Total	**0.0253**	**0.1995**	**0.2122**	**9.8000e-004**	**0.0644**	**7.6000e-004**	**0.0652**	**0.0174**	**7.2000e-004**	**0.0181**	**0.0000**	**92.2648**	**92.2648**	**4.1700e-003**	**0.0000**	**92.3691**

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	0.1953	1.5306	1.3908	2.3900e-003		0.0781	0.0781		0.0748	0.0748	0.0000	198.3043	198.3043	0.0390	0.0000	199.2797
Total	**0.1953**	**1.5306**	**1.3908**	**2.3900e-003**		**0.0781**	**0.0781**		**0.0748**	**0.0748**	**0.0000**	**198.3043**	**198.3043**	**0.0390**	**0.0000**	**199.2797**

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	5.4300e-003	0.1848	0.0458	4.8000e-004	0.0120	3.7000e-004	0.0124	3.4700e-003	3.6000e-004	3.8300e-003	0.0000	46.6320	46.6320	2.9500e-003	0.0000	46.7057
Worker	0.0199	0.0147	0.1664	5.0000e-004	0.0524	3.9000e-004	0.0528	0.0139	3.6000e-004	0.0143	0.0000	45.6328	45.6328	1.2200e-003	0.0000	45.6634
Total	**0.0253**	**0.1995**	**0.2122**	**9.8000e-004**	**0.0644**	**7.6000e-004**	**0.0652**	**0.0174**	**7.2000e-004**	**0.0181**	**0.0000**	**92.2648**	**92.2648**	**4.1700e-003**	**0.0000**	**92.3691**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0269	0.2118	0.2081	3.6000e-004		0.0102	0.0102		9.7600e-003	9.7600e-003	0.0000	30.1136	30.1136	5.8100e-003	0.0000	30.2589
Total	**0.0269**	**0.2118**	**0.2081**	**3.6000e-004**		**0.0102**	**0.0102**		**9.7600e-003**	**9.7600e-003**	**0.0000**	**30.1136**	**30.1136**	**5.8100e-003**	**0.0000**	**30.2589**

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	7.7000e-004	0.0266	6.5800e-003	7.0000e-005	1.8300e-003	5.0000e-005	1.8800e-003	5.3000e-004	5.0000e-005	5.7000e-004	0.0000	7.0179	7.0179	4.3000e-004	0.0000	7.0287
Worker	2.8400e-003	2.0200e-003	0.0233	7.0000e-005	7.9500e-003	6.0000e-005	8.0100e-003	2.1100e-003	5.0000e-005	2.1700e-003	0.0000	6.6801	6.6801	1.7000e-004	0.0000	6.6843
Total	**3.6100e-003**	**0.0286**	**0.0299**	**1.4000e-004**	**9.7800e-003**	**1.1000e-004**	**9.8900e-003**	**2.6400e-003**	**1.0000e-004**	**2.7400e-003**	**0.0000**	**13.6980**	**13.6980**	**6.0000e-004**	**0.0000**	**13.7130**

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	0.0269	0.2118	0.2081	3.6000e-004		0.0102	0.0102		9.7600e-003	9.7600e-003	0.0000	30.1136	30.1136	5.8100e-003	0.0000	30.2588
Total	**0.0269**	**0.2118**	**0.2081**	**3.6000e-004**		**0.0102**	**0.0102**		**9.7600e-003**	**9.7600e-003**	**0.0000**	**30.1136**	**30.1136**	**5.8100e-003**	**0.0000**	**30.2588**

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	7.7000e-004	0.0266	6.5800e-003	7.0000e-005	1.8300e-003	5.0000e-005	1.8800e-003	5.3000e-004	5.0000e-005	5.7000e-004	0.0000	7.0179	7.0179	4.3000e-004	0.0000	7.0287
Worker	2.8400e-003	2.0200e-003	0.0233	7.0000e-005	7.9500e-003	6.0000e-005	8.0100e-003	2.1100e-003	5.0000e-005	2.1700e-003	0.0000	6.6801	6.6801	1.7000e-004	0.0000	6.6843
Total	**3.6100e-003**	**0.0286**	**0.0299**	**1.4000e-004**	**9.7800e-003**	**1.1000e-004**	**9.8900e-003**	**2.6400e-003**	**1.0000e-004**	**2.7400e-003**	**0.0000**	**13.6980**	**13.6980**	**6.0000e-004**	**0.0000**	**13.7130**

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	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	1.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6900e-003**	**0.0467**	**0.0585**	**9.0000e-005**		**2.4400e-003**	**2.4400e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

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	2.9000e-004	2.1000e-004	2.4100e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6911	0.6911	2.0000e-005	0.0000	0.6915
Total	**2.9000e-004**	**2.1000e-004**	**2.4100e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.6911**	**0.6911**	**2.0000e-005**	**0.0000**	**0.6915**

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	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	1.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6900e-003**	**0.0467**	**0.0585**	**9.0000e-005**		**2.4400e-003**	**2.4400e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

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	2.9000e-004	2.1000e-004	2.4100e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6911	0.6911	2.0000e-005	0.0000	0.6915
Total	**2.9000e-004**	**2.1000e-004**	**2.4100e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.6911**	**0.6911**	**2.0000e-005**	**0.0000**	**0.6915**

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	0.2516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.2526**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

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	2.0000e-004	1.4000e-004	1.6100e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4607	0.4607	1.0000e-005	0.0000	0.4610
Total	**2.0000e-004**	**1.4000e-004**	**1.6100e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4607**	**0.4607**	**1.0000e-005**	**0.0000**	**0.4610**

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	0.2516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.2526**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

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	2.0000e-004	1.4000e-004	1.6100e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4607	0.4607	1.0000e-005	0.0000	0.4610
Total	**2.0000e-004**	**1.4000e-004**	**1.6100e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4607**	**0.4607**	**1.0000e-005**	**0.0000**	**0.4610**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1697	0.9126	1.9168	6.9100e-003	0.5600	5.5600e-003	0.5656	0.1501	5.1900e-003	0.1553	0.0000	639.0170	639.0170	0.0328	0.0000	639.8367
Unmitigated	0.1697	0.9126	1.9168	6.9100e-003	0.5600	5.5600e-003	0.5656	0.1501	5.1900e-003	0.1553	0.0000	639.0170	639.0170	0.0328	0.0000	639.8367

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	476.16	542.02	1914.58	1,473,881	1,473,881
Parking Lot	0.00	0.00	0.00		
Total	476.16	542.02	1,914.58	1,473,881	1,473,881

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Place of Worship	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Parking Lot	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	176.5291	176.5291	7.2900e-003	1.5100e-003	177.1606
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	176.5291	176.5291	7.2900e-003	1.5100e-003	177.1606
NaturalGas Mitigated	9.1600e-003	0.0832	0.0699	5.0000e-004		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	90.6217	90.6217	1.7400e-003	1.6600e-003	91.1603
NaturalGas Unmitigated	9.1600e-003	0.0832	0.0699	5.0000e-004		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	90.6217	90.6217	1.7400e-003	1.6600e-003	91.1603

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	1.69819e+006	9.1600e-003	0.0832	0.0699	5.0000e-004		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	90.6217	90.6217	1.7400e-003	1.6600e-003	91.1603
Total		**9.1600e-003**	**0.0832**	**0.0699**	**5.0000e-004**		**6.3300e-003**	**6.3300e-003**		**6.3300e-003**	**6.3300e-003**	**0.0000**	**90.6217**	**90.6217**	**1.7400e-003**	**1.6600e-003**	**91.1603**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	1.69819e+006	9.1600e-003	0.0832	0.0699	5.0000e-004		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	90.6217	90.6217	1.7400e-003	1.6600e-003	91.1603
Total		**9.1600e-003**	**0.0832**	**0.0699**	**5.0000e-004**		**6.3300e-003**	**6.3300e-003**		**6.3300e-003**	**6.3300e-003**	**0.0000**	**90.6217**	**90.6217**	**1.7400e-003**	**1.6600e-003**	**91.1603**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	23520	7.4940	3.1000e-004	6.0000e-005	7.5208
Place of Worship	530520	169.0351	6.9800e-003	1.4400e-003	169.6398
Total		**176.5291**	**7.2900e-003**	**1.5000e-003**	**177.1606**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	23520	7.4940	3.1000e-004	6.0000e-005	7.5208
Place of Worship	530520	169.0351	6.9800e-003	1.4400e-003	169.6398
Total		**176.5291**	**7.2900e-003**	**1.5000e-003**	**177.1606**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2186	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4700e-003	5.4700e-003	1.0000e-005	0.0000	5.8300e-003
Unmitigated	0.2186	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4700e-003	5.4700e-003	1.0000e-005	0.0000	5.8300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1932					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4700e-003	5.4700e-003	1.0000e-005	0.0000	5.8300e-003
Total	**0.2186**	**3.0000e-005**	**2.8200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**1.0000e-005**	**0.0000**	**5.8300e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1932					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4700e-003	5.4700e-003	1.0000e-005	0.0000	5.8300e-003
Total	**0.2186**	**3.0000e-005**	**2.8200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**1.0000e-005**	**0.0000**	**5.8300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	16.3592	0.0540	1.3900e-003	18.1232
Unmitigated	16.3592	0.0540	1.3900e-003	18.1232

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	1.63547 / 2.55804	16.3592	0.0540	1.3900e-003	18.1232
Total		**16.3592**	**0.0540**	**1.3900e-003**	**18.1232**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	1.63547 / 2.55804	16.3592	0.0540	1.3900e-003	18.1232
Total		**16.3592**	**0.0540**	**1.3900e-003**	**18.1232**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	60.4791	3.5742	0.0000	149.8345
Unmitigated	60.4791	3.5742	0.0000	149.8345

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	297.94	60.4791	3.5742	0.0000	149.8345
Total		**60.4791**	**3.5742**	**0.0000**	**149.8345**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	297.94	60.4791	3.5742	0.0000	149.8345
Total		**60.4791**	**3.5742**	**0.0000**	**149.8345**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Lake Mathews Temple

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	52.27	1000sqft	1.20	52,268.00	0
Parking Lot	168.00	Space	1.51	67,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3118	20.2409	16.8992	0.0357	6.6641	1.0420	7.5807	3.3971	0.9725	4.2404	0.0000	3,387.5141	3,387.5141	0.7698	0.0000	3,399.9684
2022	50.5654	16.5383	16.5228	0.0354	0.6869	0.7095	1.3964	0.1851	0.6800	0.8650	0.0000	3,363.2615	3,363.2615	0.5459	0.0000	3,375.4329
Maximum	**50.5654**	**20.2409**	**16.8992**	**0.0357**	**6.6641**	**1.0420**	**7.5807**	**3.3971**	**0.9725**	**4.2404**	**0.0000**	**3,387.5141**	**3,387.5141**	**0.7698**	**0.0000**	**3,399.9684**

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	2.3118	20.2409	16.8992	0.0357	6.6641	1.0420	7.5807	3.3971	0.9725	4.2404	0.0000	3,387.5141	3,387.5141	0.7698	0.0000	3,399.9684
2022	50.5654	16.5383	16.5228	0.0354	0.6869	0.7095	1.3964	0.1851	0.6800	0.8650	0.0000	3,363.2615	3,363.2615	0.5459	0.0000	3,375.4329
Maximum	**50.5654**	**20.2409**	**16.8992**	**0.0357**	**6.6641**	**1.0420**	**7.5807**	**3.3971**	**0.9725**	**4.2404**	**0.0000**	**3,387.5141**	**3,387.5141**	**0.7698**	**0.0000**	**3,399.9684**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Energy	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Mobile	2.8025	13.5154	30.2344	0.1095	8.6827	0.0844	8.7672	2.3232	0.0788	2.4019		11,158.3342	11,158.3342	0.5501		11,172.0859
Total	**4.0513**	**13.9717**	**30.6401**	**0.1122**	**8.6827**	**0.1192**	**8.8019**	**2.3232**	**0.1135**	**2.4367**		**11,705.7433**	**11,705.7433**	**0.5607**	**0.0100**	**11,722.7509**

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	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Energy	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Mobile	2.8025	13.5154	30.2344	0.1095	8.6827	0.0844	8.7672	2.3232	0.0788	2.4019		11,158.3342	11,158.3342	0.5501		11,172.0859
Total	**4.0513**	**13.9717**	**30.6401**	**0.1122**	**8.6827**	**0.1192**	**8.8019**	**2.3232**	**0.1135**	**2.4367**		**11,705.7433**	**11,705.7433**	**0.5607**	**0.0100**	**11,722.7509**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
2	Site Preparation	Site Preparation	3/27/2021	3/31/2021	5	3	
3	Grading	Grading	4/1/2021	4/8/2021	5	6	
4	Building Construction	Building Construction	4/9/2021	2/10/2022	5	220	
5	Paving	Paving	2/11/2022	2/24/2022	5	10	
6	Architectural Coating	Architectural Coating	2/25/2022	3/10/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.51

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 78,402; Non-Residential Outdoor: 26,134; Striped Parking Area: 4,032 (Architectural Coating – sqft)

OffRoad Equipment

Lake Mathews Temple - South Coast AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	50.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**		**1.0409**	**1.0409**		**0.9715**	**0.9715**		**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

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	0.0000	0.0000	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	0.0549	0.0356	0.4897	1.4400e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		143.9624	143.9624	3.8700e-003		144.0592
Total	**0.0549**	**0.0356**	**0.4897**	**1.4400e-003**	**0.1453**	**1.0700e-003**	**0.1464**	**0.0385**	**9.9000e-004**	**0.0395**		**143.9624**	**143.9624**	**3.8700e-003**		**144.0592**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**		**1.0409**	**1.0409**		**0.9715**	**0.9715**	**0.0000**	**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

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	0.0000	0.0000	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	0.0549	0.0356	0.4897	1.4400e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		143.9624	143.9624	3.8700e-003		144.0592
Total	**0.0549**	**0.0356**	**0.4897**	**1.4400e-003**	**0.1453**	**1.0700e-003**	**0.1464**	**0.0385**	**9.9000e-004**	**0.0395**		**143.9624**	**143.9624**	**3.8700e-003**		**144.0592**

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5908**	**0.7019**	**2.2926**	**0.1718**	**0.6457**	**0.8175**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003		88.6518
Total	**0.0338**	**0.0219**	**0.3014**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5923**	**88.5923**	**2.3800e-003**		**88.6518**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5908**	**0.7019**	**2.2926**	**0.1718**	**0.6457**	**0.8175**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003		88.6518
Total	**0.0338**	**0.0219**	**0.3014**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5923**	**88.5923**	**2.3800e-003**		**88.6518**

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	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5523**	**0.9158**	**7.4681**	**3.3675**	**0.8425**	**4.2100**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0422	0.0274	0.3767	1.1100e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.7403	110.7403	2.9800e-003		110.8148
Total	**0.0422**	**0.0274**	**0.3767**	**1.1100e-003**	**0.1118**	**8.2000e-004**	**0.1126**	**0.0296**	**7.6000e-004**	**0.0304**		**110.7403**	**110.7403**	**2.9800e-003**		**110.8148**

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	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5523**	**0.9158**	**7.4681**	**3.3675**	**0.8425**	**4.2100**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0422	0.0274	0.3767	1.1100e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.7403	110.7403	2.9800e-003		110.8148
Total	**0.0422**	**0.0274**	**0.3767**	**1.1100e-003**	**0.1118**	**8.2000e-004**	**0.1126**	**0.0296**	**7.6000e-004**	**0.0304**		**110.7403**	**110.7403**	**2.9800e-003**		**110.8148**

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0557	1.9075	0.4527	5.1000e-003	0.1280	3.8400e-003	0.1318	0.0369	3.6700e-003	0.0405		544.8769	544.8769	0.0330		545.7009
Worker	0.2111	0.1369	1.8836	5.5600e-003	0.5589	4.1100e-003	0.5630	0.1482	3.7900e-003	0.1520		553.7017	553.7017	0.0149		554.0739
Total	**0.2667**	**2.0444**	**2.3363**	**0.0107**	**0.6869**	**7.9500e-003**	**0.6948**	**0.1851**	**7.4600e-003**	**0.1925**		**1,098.5786**	**1,098.5786**	**0.0479**		**1,099.7748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0557	1.9075	0.4527	5.1000e-003	0.1280	3.8400e-003	0.1318	0.0369	3.6700e-003	0.0405		544.8769	544.8769	0.0330		545.7009
Worker	0.2111	0.1369	1.8836	5.5600e-003	0.5589	4.1100e-003	0.5630	0.1482	3.7900e-003	0.1520		553.7017	553.7017	0.0149		554.0739
Total	**0.2667**	**2.0444**	**2.3363**	**0.0107**	**0.6869**	**7.9500e-003**	**0.6948**	**0.1851**	**7.4600e-003**	**0.1925**		**1,098.5786**	**1,098.5786**	**0.0479**		**1,099.7748**

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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0522	1.8107	0.4278	5.0600e-003	0.1280	3.3300e-003	0.1313	0.0369	3.1800e-003	0.0400		540.1183	540.1183	0.0317		540.9115
Worker	0.1980	0.1237	1.7418	5.3600e-003	0.5589	4.0000e-003	0.5629	0.1482	3.6800e-003	0.1519		533.8620	533.8620	0.0135		534.1984
Total	**0.2502**	**1.9343**	**2.1696**	**0.0104**	**0.6869**	**7.3300e-003**	**0.6942**	**0.1851**	**6.8600e-003**	**0.1919**		**1,073.9802**	**1,073.9802**	**0.0452**		**1,075.1099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0522	1.8107	0.4278	5.0600e-003	0.1280	3.3300e-003	0.1313	0.0369	3.1800e-003	0.0400		540.1183	540.1183	0.0317		540.9115
Worker	0.1980	0.1237	1.7418	5.3600e-003	0.5589	4.0000e-003	0.5629	0.1482	3.6800e-003	0.1519		533.8620	533.8620	0.0135		534.1984
Total	**0.2502**	**1.9343**	**2.1696**	**0.0104**	**0.6869**	**7.3300e-003**	**0.6942**	**0.1851**	**6.8600e-003**	**0.1919**		**1,073.9802**	**1,073.9802**	**0.0452**		**1,075.1099**

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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3368**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0594	0.0371	0.5225	1.6100e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		160.1586	160.1586	4.0400e-003		160.2595
Total	**0.0594**	**0.0371**	**0.5225**	**1.6100e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**160.1586**	**160.1586**	**4.0400e-003**		**160.2595**

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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3368**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0594	0.0371	0.5225	1.6100e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		160.1586	160.1586	4.0400e-003		160.2595
Total	**0.0594**	**0.0371**	**0.5225**	**1.6100e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**160.1586**	**160.1586**	**4.0400e-003**		**160.2595**

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	50.3213					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	**50.5258**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.0396	0.0247	0.3484	1.0700e-003	0.1118	8.0000e-004	0.1126	0.0296	7.4000e-004	0.0304		106.7724	106.7724	2.6900e-003		106.8397
Total	**0.0396**	**0.0247**	**0.3484**	**1.0700e-003**	**0.1118**	**8.0000e-004**	**0.1126**	**0.0296**	**7.4000e-004**	**0.0304**		**106.7724**	**106.7724**	**2.6900e-003**		**106.8397**

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	50.3213					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	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**50.5258**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.0396	0.0247	0.3484	1.0700e-003	0.1118	8.0000e-004	0.1126	0.0296	7.4000e-004	0.0304		106.7724	106.7724	2.6900e-003		106.8397
Total	**0.0396**	**0.0247**	**0.3484**	**1.0700e-003**	**0.1118**	**8.0000e-004**	**0.1126**	**0.0296**	**7.4000e-004**	**0.0304**		**106.7724**	**106.7724**	**2.6900e-003**		**106.8397**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8025	13.5154	30.2344	0.1095	8.6827	0.0844	8.7672	2.3232	0.0788	2.4019		11,158.3342	11,158.3342	0.5501		11,172.0859
Unmitigated	2.8025	13.5154	30.2344	0.1095	8.6827	0.0844	8.7672	2.3232	0.0788	2.4019		11,158.3342	11,158.3342	0.5501		11,172.0859

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	476.16	542.02	1914.58	1,473,881	1,473,881
Parking Lot	0.00	0.00	0.00		
Total	476.16	542.02	1,914.58	1,473,881	1,473,881

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Place of Worship	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Parking Lot	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
NaturalGas Unmitigated	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	4652.57	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Total		**0.0502**	**0.4561**	**0.3832**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**547.3609**	**547.3609**	**0.0105**	**0.0100**	**550.6136**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	4.65257	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Total		**0.0502**	**0.4561**	**0.3832**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**547.3609**	**547.3609**	**0.0105**	**0.0100**	**550.6136**

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	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Unmitigated	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514

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	0.1379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0587					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Total	**1.1987**	**2.1000e-004**	**0.0225**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0482**	**0.0482**	**1.3000e-004**		**0.0514**

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	0.1379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0587					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Total	**1.1987**	**2.1000e-004**	**0.0225**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0482**	**0.0482**	**1.3000e-004**		**0.0514**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Lake Mathews Temple

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	52.27	1000sqft	1.20	52,268.00	0
Parking Lot	168.00	Space	1.51	67,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3342	20.2435	16.7622	0.0352	6.6641	1.0420	7.5807	3.3971	0.9725	4.2404	0.0000	3,335.8699	3,335.8699	0.7697	0.0000	3,348.3598
2022	50.5692	16.5428	16.3946	0.0349	0.6869	0.7096	1.3965	0.1851	0.6801	0.8651	0.0000	3,312.9380	3,312.9380	0.5456	0.0000	3,325.1444
Maximum	**50.5692**	**20.2435**	**16.7622**	**0.0352**	**6.6641**	**1.0420**	**7.5807**	**3.3971**	**0.9725**	**4.2404**	**0.0000**	**3,335.8699**	**3,335.8699**	**0.7697**	**0.0000**	**3,348.3598**

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	2.3342	20.2435	16.7622	0.0352	6.6641	1.0420	7.5807	3.3971	0.9725	4.2404	0.0000	3,335.8698	3,335.8698	0.7697	0.0000	3,348.3598
2022	50.5692	16.5428	16.3946	0.0349	0.6869	0.7096	1.3965	0.1851	0.6801	0.8651	0.0000	3,312.9380	3,312.9380	0.5456	0.0000	3,325.1444
Maximum	**50.5692**	**20.2435**	**16.7622**	**0.0352**	**6.6641**	**1.0420**	**7.5807**	**3.3971**	**0.9725**	**4.2404**	**0.0000**	**3,335.8698**	**3,335.8698**	**0.7697**	**0.0000**	**3,348.3598**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Energy	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Mobile	2.6523	13.6506	28.8755	0.1035	8.6827	0.0852	8.7679	2.3232	0.0795	2.4026		10,551.6260	10,551.6260	0.5570		10,565.5497
Total	**3.9012**	**14.1069**	**29.2811**	**0.1062**	**8.6827**	**0.1199**	**8.8027**	**2.3232**	**0.1142**	**2.4374**		**11,099.0351**	**11,099.0351**	**0.5676**	**0.0100**	**11,116.2147**

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	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Energy	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Mobile	2.6523	13.6506	28.8755	0.1035	8.6827	0.0852	8.7679	2.3232	0.0795	2.4026		10,551.6260	10,551.6260	0.5570		10,565.5497
Total	**3.9012**	**14.1069**	**29.2811**	**0.1062**	**8.6827**	**0.1199**	**8.8027**	**2.3232**	**0.1142**	**2.4374**		**11,099.0351**	**11,099.0351**	**0.5676**	**0.0100**	**11,116.2147**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
2	Site Preparation	Site Preparation	3/27/2021	3/31/2021	5	3	
3	Grading	Grading	4/1/2021	4/8/2021	5	6	
4	Building Construction	Building Construction	4/9/2021	2/10/2022	5	220	
5	Paving	Paving	2/11/2022	2/24/2022	5	10	
6	Architectural Coating	Architectural Coating	2/25/2022	3/10/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.51

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 78,402; Non-Residential Outdoor: 26,134; Striped Parking Area: 4,032 (Architectural Coating – sqft)

OffRoad Equipment

Lake Mathews Temple - South Coast AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	50.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**		**1.0409**	**1.0409**		**0.9715**	**0.9715**		**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

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	0.0000	0.0000	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	0.0600	0.0390	0.4401	1.3500e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		134.6368	134.6368	3.6100e-003		134.7270
Total	**0.0600**	**0.0390**	**0.4401**	**1.3500e-003**	**0.1453**	**1.0700e-003**	**0.1464**	**0.0385**	**9.9000e-004**	**0.0395**		**134.6368**	**134.6368**	**3.6100e-003**		**134.7270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**		**1.0409**	**1.0409**		**0.9715**	**0.9715**	**0.0000**	**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

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	0.0000	0.0000	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	0.0600	0.0390	0.4401	1.3500e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		134.6368	134.6368	3.6100e-003		134.7270
Total	**0.0600**	**0.0390**	**0.4401**	**1.3500e-003**	**0.1453**	**1.0700e-003**	**0.1464**	**0.0385**	**9.9000e-004**	**0.0395**		**134.6368**	**134.6368**	**3.6100e-003**		**134.7270**

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5908**	**0.7019**	**2.2926**	**0.1718**	**0.6457**	**0.8175**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089
Total	**0.0369**	**0.0240**	**0.2708**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**82.8534**	**82.8534**	**2.2200e-003**		**82.9089**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5908**	**0.7019**	**2.2926**	**0.1718**	**0.6457**	**0.8175**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089
Total	**0.0369**	**0.0240**	**0.2708**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**82.8534**	**82.8534**	**2.2200e-003**		**82.9089**

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	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5523**	**0.9158**	**7.4681**	**3.3675**	**0.8425**	**4.2100**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0461	0.0300	0.3385	1.0400e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.5668	103.5668	2.7800e-003		103.6362
Total	**0.0461**	**0.0300**	**0.3385**	**1.0400e-003**	**0.1118**	**8.2000e-004**	**0.1126**	**0.0296**	**7.6000e-004**	**0.0304**		**103.5668**	**103.5668**	**2.7800e-003**		**103.6362**

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	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5523**	**0.9158**	**7.4681**	**3.3675**	**0.8425**	**4.2100**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0461	0.0300	0.3385	1.0400e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.5668	103.5668	2.7800e-003		103.6362
Total	**0.0461**	**0.0300**	**0.3385**	**1.0400e-003**	**0.1118**	**8.2000e-004**	**0.1126**	**0.0296**	**7.6000e-004**	**0.0304**		**103.5668**	**103.5668**	**2.7800e-003**		**103.6362**

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0586	1.9015	0.5065	4.9600e-003	0.1280	3.9600e-003	0.1320	0.0369	3.7900e-003	0.0406		529.1004	529.1004	0.0354		529.9854
Worker	0.2306	0.1498	1.6927	5.2000e-003	0.5589	4.1100e-003	0.5630	0.1482	3.7900e-003	0.1520		517.8339	517.8339	0.0139		518.1809
Total	**0.2892**	**2.0513**	**2.1992**	**0.0102**	**0.6869**	**8.0700e-003**	**0.6950**	**0.1851**	**7.5800e-003**	**0.1927**		**1,046.9343**	**1,046.9343**	**0.0493**		**1,048.1663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0586	1.9015	0.5065	4.9600e-003	0.1280	3.9600e-003	0.1320	0.0369	3.7900e-003	0.0406		529.1004	529.1004	0.0354		529.9854
Worker	0.2306	0.1498	1.6927	5.2000e-003	0.5589	4.1100e-003	0.5630	0.1482	3.7900e-003	0.1520		517.8339	517.8339	0.0139		518.1809
Total	**0.2892**	**2.0513**	**2.1992**	**0.0102**	**0.6869**	**8.0700e-003**	**0.6950**	**0.1851**	**7.5800e-003**	**0.1927**		**1,046.9343**	**1,046.9343**	**0.0493**		**1,048.1663**

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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0550	1.8034	0.4790	4.9100e-003	0.1280	3.4400e-003	0.1314	0.0369	3.2900e-003	0.0401		524.3885	524.3885	0.0341		525.2399
Worker	0.2169	0.1353	1.5624	5.0100e-003	0.5589	4.0000e-003	0.5629	0.1482	3.6800e-003	0.1519		499.2683	499.2683	0.0125		499.5816
Total	**0.2718**	**1.9388**	**2.0414**	**9.9200e-003**	**0.6869**	**7.4400e-003**	**0.6943**	**0.1851**	**6.9700e-003**	**0.1920**		**1,023.6567**	**1,023.6567**	**0.0466**		**1,024.8214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0550	1.8034	0.4790	4.9100e-003	0.1280	3.4400e-003	0.1314	0.0369	3.2900e-003	0.0401		524.3885	524.3885	0.0341		525.2399
Worker	0.2169	0.1353	1.5624	5.0100e-003	0.5589	4.0000e-003	0.5629	0.1482	3.6800e-003	0.1519		499.2683	499.2683	0.0125		499.5816
Total	**0.2718**	**1.9388**	**2.0414**	**9.9200e-003**	**0.6869**	**7.4400e-003**	**0.6943**	**0.1851**	**6.9700e-003**	**0.1920**		**1,023.6567**	**1,023.6567**	**0.0466**		**1,024.8214**

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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3368**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0651	0.0406	0.4687	1.5000e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		149.7805	149.7805	3.7600e-003		149.8745
Total	**0.0651**	**0.0406**	**0.4687**	**1.5000e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**149.7805**	**149.7805**	**3.7600e-003**		**149.8745**

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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3368**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0651	0.0406	0.4687	1.5000e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		149.7805	149.7805	3.7600e-003		149.8745
Total	**0.0651**	**0.0406**	**0.4687**	**1.5000e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**149.7805**	**149.7805**	**3.7600e-003**		**149.8745**

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	50.3213					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	**50.5258**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.0434	0.0271	0.3125	1.0000e-003	0.1118	8.0000e-004	0.1126	0.0296	7.4000e-004	0.0304		99.8537	99.8537	2.5100e-003		99.9163
Total	**0.0434**	**0.0271**	**0.3125**	**1.0000e-003**	**0.1118**	**8.0000e-004**	**0.1126**	**0.0296**	**7.4000e-004**	**0.0304**		**99.8537**	**99.8537**	**2.5100e-003**		**99.9163**

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	50.3213					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	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**50.5258**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	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	0.0434	0.0271	0.3125	1.0000e-003	0.1118	8.0000e-004	0.1126	0.0296	7.4000e-004	0.0304		99.8537	99.8537	2.5100e-003		99.9163
Total	**0.0434**	**0.0271**	**0.3125**	**1.0000e-003**	**0.1118**	**8.0000e-004**	**0.1126**	**0.0296**	**7.4000e-004**	**0.0304**		**99.8537**	**99.8537**	**2.5100e-003**		**99.9163**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6523	13.6506	28.8755	0.1035	8.6827	0.0852	8.7679	2.3232	0.0795	2.4026		10,551.6260	10,551.6260	0.5570		10,565.5497
Unmitigated	2.6523	13.6506	28.8755	0.1035	8.6827	0.0852	8.7679	2.3232	0.0795	2.4026		10,551.6260	10,551.6260	0.5570		10,565.5497

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	476.16	542.02	1914.58	1,473,881	1,473,881
Parking Lot	0.00	0.00	0.00		
Total	476.16	542.02	1,914.58	1,473,881	1,473,881

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Place of Worship	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Parking Lot	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
NaturalGas Unmitigated	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	4652.57	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Total		**0.0502**	**0.4561**	**0.3832**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**547.3609**	**547.3609**	**0.0105**	**0.0100**	**550.6136**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	4.65257	0.0502	0.4561	0.3832	2.7400e-003		0.0347	0.0347		0.0347	0.0347		547.3609	547.3609	0.0105	0.0100	550.6136
Total		**0.0502**	**0.4561**	**0.3832**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**547.3609**	**547.3609**	**0.0105**	**0.0100**	**550.6136**

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	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Unmitigated	1.1987	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514

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	0.1379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0587					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Total	**1.1987**	**2.1000e-004**	**0.0225**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0482**	**0.0482**	**1.3000e-004**		**0.0514**

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	0.1379					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0587					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.1000e-004	0.0225	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0514
Total	**1.1987**	**2.1000e-004**	**0.0225**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0482**	**0.0482**	**1.3000e-004**		**0.0514**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation