

## TECHNICAL MEMORANDUM

**TO:** County of San Bernardino

**SUBJECT:** Air Quality Technical Memo For Sai Ram Mandir

**FROM:** Aruna Reddy, Project Manager

**DATE:** August 3, 2020

### 1.0 PURPOSE

This Air Quality Technical Study was conducted to evaluate potential air quality impacts of the proposed project. This study will help inform the Conditional Use Permit (CUP) required for the proposed use.

### 2.0 PROJECT LOCATION

The proposed Sai Ram Mandir will be located on a 4.83 acre site in unincorporated San Bernardino County at 12594 Roswell Avenue, Chino, CA (Figure 1). The project study area is in the South Coast Air Basin (SCAB). The site is on two parcels with APN 1016-331-05 and -06. The project site is zoned RS-20M within a Single Residential land use designation. Adjacent parcels to the north, west, south, and east are also Single Residential within unincorporated San Bernardino County, except one adjoining parcel to the north which is in the City of Chino right of way for Walnut Avenue. The site is bordered to the northeast by a rail road track. The proposed site is on the Ontario, California United States Geological Survey (USGS) topographic quadrangle (latitude 34.024943° N and longitude 117.721223°W at an elevation of 754 feet above mean sea level).

### 3.0 PROJECT DESCRIPTION

Sri Jayaram Foundation proposes to build a temple for Sri Sai Baba and provide community services. The project would involve the construction of a two story temple within the site (Figure 2). The main temple structure will have a square footage of 32,400 square feet. A three story caretaker quarters of 4,500 square feet will be built toward the east property line. About 2 acres of the 4.83 acre site will be left unpaved and empty for future residential use so the built area will be 2.83 acres. Access to the temple will be from the north (Walnut Avenue) and east (Rosewell Avenue). Parking will be provided to the east and west of the temple.

The first level is designed to serve as the main 270- seat congregation area for the purpose of worship and prayer (Figure 2). There will also be a kitchen facility for cooking and a dining hall located adjacent to the main congregation hall at the first floor, as well as classrooms for the youth, multipurpose meeting rooms, administrative offices and prayer/meditation rooms. The second level will house a prayer hall where devotees can view the idols and perform rituals. There will also be three classrooms for youth to learn about music, dance, yoga, education, etc. The facility will also be designed to offer spaces for community events and activities. Both the larger hall or the smaller multipurpose rooms and classrooms will function individually for community services such as health fairs, counseling sessions, job search assistance, environmental awareness campaigns, community pantry and food drive.

### Project Construction

Construction would consist of site preparation, grading, temple construction, paving and architectural coating. Construction defaults in CalEEMod version 2016.3.2 (CalEEMod) for “Places of Worship” land use were utilized. Construction would require approximately 12 months from March 2021 to April 2022. Utilizing the CalEEMod construction schedule, it was assumed site preparation would last 5 days, grading 8 days, building construction 230 days, paving 18 days and architectural coating 18 days (Attachment 1). It was assumed that no demolition would be required because the site is empty and there are no existing structures on site. Construction would occur between 7:00 a.m. and 4:00 p.m. 5 days per week.

### Operations

Sai Ram Mandir will conduct religious and cultural activities at the project site. The hours of operation are from 6:00 AM to 1:00 PM and 6:00 PM to 9 PM on weekdays. The facility will be closed from 1:00 PM to 6 PM on weekdays. On weekends (Saturdays and Sundays) the facility will be open from 6:00 AM to 9:00 PM. Every day four aarthis or services will be performed. The timings of the daily services are 6:00 AM (morning aarathi), 12:00 PM (afternoon aarathi), 7:00 PM (evening aarathi) and 8:30 PM (night aarathi). These services last for 10-15 minutes. It is expected that the members of the congregation would attend one of the four services once or twice a month.

An onsite manager will provide leadership, manage two staff including the temple priest, and oversee day-to-day temple operations and perform daily hands-on operational duties. All temple staff will reside on site in the adjunct staff quarters. The manager will work closely with all constituents including devotees, priests, staff, volunteers, neighbors, and management and ensure smooth functioning of religious, human services, cultural, youth & education, and other temple events. According to the Traffic Impact Analysis (June 2020) for this project, daily trip volumes to the temple are 247 trips per day Monday to Friday, 313 trips per day on Saturday and 905 trips per day on Sunday.

## 4.0 ENVIRONMENTAL SETTING

The following discussion describes the existing air quality conditions in the project area. The project area is located in the SCAB, which is under the air quality jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD is tasked with air quality monitoring, planning, and enforcement throughout the SCAB. The SCAB is geographically divided into 38 subareas referred to as Source Receptor Areas (SRAs), each of which contains an air monitoring station that measures ambient concentrations of air pollutants. The project area is situated within SRA 33 for Chino.

### South Coast Air Basin Attainment Status

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for six criteria air pollutants (United States Environmental Protection Agency [USEPA], 2018): ozone (O<sub>3</sub>); nitrogen dioxide (NO<sub>2</sub>); carbon monoxide (CO); sulfur dioxide (SO<sub>2</sub>); particulate matter (PM), including both respirable particulate matter (PM<sub>10</sub>) and fine particulate matter (PM<sub>2.5</sub>); and lead (Pb). These pollutants are common byproducts of human activities and have been documented through scientific research to cause adverse health effects. The Clean Air Act (CAA) grants USEPA the authority to designate air basins, or portions thereof, as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria air pollutant based on whether the NAAQS concentrations have been met within the Air Basin, based on air quality monitoring data for the most recent 3-year period. The California Air Resources Board (CARB) similarly designates Air Basins or portions thereof as being in attainment or nonattainment of the CAAQS.



Source: Google Maps

### SITE LOCATION MAP

FIGURE 1  
DATE: AUGUST 26, 2019

SAI RAM MANDIR  
12594 ROSEWELL AVENUE,  
CHINO, CA 91710



WALNUT AVE.

RAILROAD

RAILROAD

ROSWELL AVE.

ROSWELL AVE.

EXISTING RESIDENTIAL USE

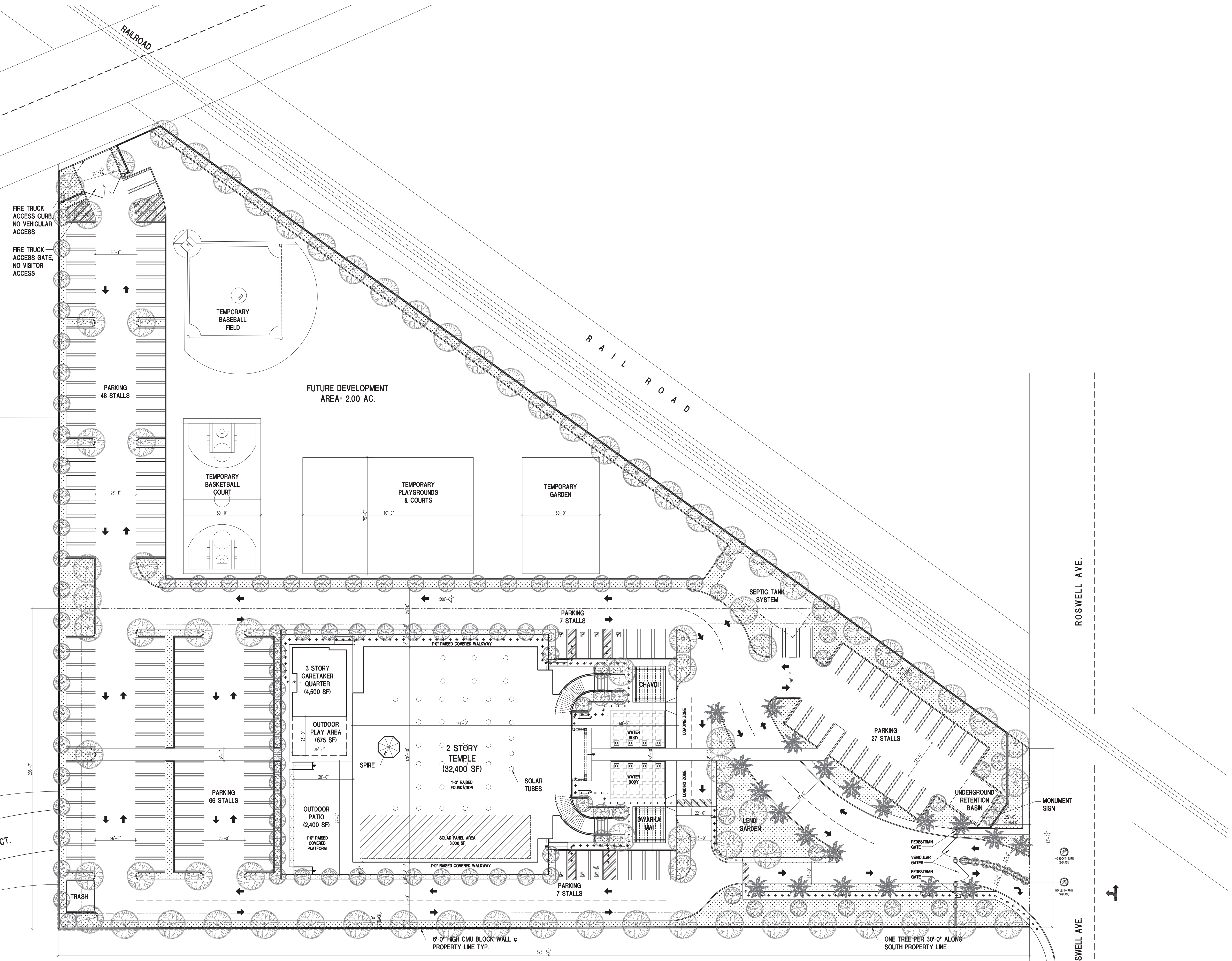
EXISTING RESIDENTIAL USE

PLACENTIA CT.

EXISTING RESIDENTIAL USE

EXISTING RESIDENTIAL USE

EXISTING RESIDENTIAL USE



FIRE TRUCK ACCESS CURB, NO VEHICULAR ACCESS

FIRE TRUCK ACCESS GATE, NO VISITOR ACCESS

TEMPORARY BASEBALL FIELD

TEMPORARY BASKETBALL COURT

TEMPORARY PLAYGROUNDS & COURTS

TEMPORARY GARDEN

FUTURE DEVELOPMENT AREA- 2.00 AC.

PARKING 48 STALLS

PARKING 7 STALLS

PARKING 27 STALLS

PARKING 66 STALLS

PARKING 7 STALLS

3 STORY CARETAKER QUARTER (4,500 SF)

OUTDOOR PLAY AREA (1,875 SF)

OUTDOOR PATIO (2,400 SF)

2 STORY TEMPLE (32,400 SF)

SOLAR PANEL AREA 3,000 SF

CHAVDI

WATER BODY

WATER BODY

DWARKA MA

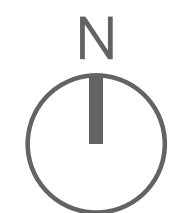
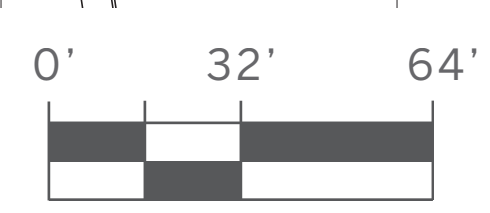
LENDI GARDEN

UNDERGROUND RETENTION BASIN

MONUMENT SIGN

ONE TREE PER 30'-0" ALONG SOUTH PROPERTY LINE

8'-0" HIGH CMU BLOCK WALL @ PROPERTY LINE TYP.



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Project:

**Sri Sairam Mandir**

12594 Roswell Ave.  
Chino, CA 91710-3036

Revisions:

01	Conceptual Drawings	11.20.2019
02	Conceptual Drawings v2	11.26.2019
03	Conceptual Drawings v3	12.03.2019
04	Conceptual Drawings v4	12.05.2019
05	Conceptual Drawings v5	12.15.2019
06	Conceptual Drawings v6	12.24.2019
07	Conceptual Drawings v7	01.20.2020
08	Conceptual Drawings v8	03.16.2020

Stamp:



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Drawing Data:

Project No	19026
Issue Date	03.16.2020
Scale	1/32" = 1'-0"
Drawn By	KM
Sheet	22" x 34"

If sheet is less than size indicated above, this is a reduced print. Reduce scale accordingly.

Sheet:

**Site Plan**  
**FIGURE 2**

### South Coast Air Basin

The project site is located within the SCAB, which is subject to some of the worst air pollution in the nation due to the immense magnitude of emissions sources and the combination of topography, low mean atmospheric mixing height, and abundant sunshine. Although the SCAB has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, the SCAB has a limited capacity to disperse air contaminants horizontally. The topography of the SCAB contributes to the variability of rainfall, temperature, and winds throughout the region.

During the spring and early summer, air pollution produced during any one day is typically transported out of the SCAB through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. The vertical dispersion of air pollutants in the SCAB is limited by temperature inversions in the atmosphere close to the Earth's surface. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants become more concentrated in urban areas with pollution sources of greater magnitude.

### Local Air Quality Conditions

Air quality within the SCAB is characterized by concentrations of air pollutants measured at 40 monitoring stations located throughout the SCAQMD jurisdiction. The SCAB is divided geographically into 38 SRAs, each of which contains an air quality monitoring station. The SRA boundaries were drawn based on the local emissions inventories and topography. The project site is located in SRA 33 for Chino. Air quality near the site is represented by air pollutant concentrations measured at the Pomona air quality monitoring station (SCAQMD, 2019a/b), which is located at 924 N. Garey Ave, Pomona, CA 91767 approximately 3.9 miles northwest of the project site. This station monitors CO, NO<sub>2</sub>, and O<sub>3</sub>. The data from this station is the most representative of air quality conditions at the project site.

### *Sensitive Receptors*

According to SCAQMD, land uses that constitute sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. The sensitive land uses closest to the project site are single family residential units that are located immediately adjacent to the fence line to the south and west.

## 5.0 REGULATORY SETTING

### Federal

#### *Federal Clean Air Act*

The CAA governs air quality at the national level. USEPA is responsible for enforcing the federal regulations enacted pursuant to the CAA. Under the CAA, USEPA is authorized to establish NAAQS that limit concentrations of air pollutants in ambient air. Enforcement of the NAAQS is required under the 1977 CAA and subsequent amendments. USEPA also regulates emission sources under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. As required by the CAA, NAAQS have been established for the six criteria air pollutants. As previously discussed, the CAA grants USEPA authority to designate areas as

attainment, nonattainment, or maintenance. USEPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies.

### Criteria Air Pollutants

Air quality is characterized by ambient air concentrations of six air pollutants identified by USEPA to be of concern with respect to the health and welfare of the general public. These air pollutants, known as “criteria air pollutants,” are pollutants for which the federal and State governments have established ambient air quality standards to protect public health. Federal criteria air pollutants include ground-level O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM (including PM<sub>10</sub> and PM<sub>2.5</sub>), and Pb. In addition to criteria air pollutants, California regulates visibility-reducing particles, sulfate, hydrogen sulfide, and vinyl chloride. Table 1 describes each criteria air pollutant and its health effects based on information provided by SCAQMD.

**Table 1. State and Federal Criteria Air Pollutant Effects and Sources**

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O <sub>3</sub> )	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants (TAC). Biogenic volatile organic compounds (VOC) may also contribute.	Low-altitude O <sub>3</sub> is almost entirely formed from VOCs and nitrogen oxides (NO <sub>x</sub> ) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Respirable Particulate Matter (PM <sub>10</sub> )	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some TACs. Many toxic and other aerosol and solid compounds are part of PM <sub>10</sub> .	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.
Fine Particulate Matter (PM <sub>2.5</sub> )	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a TAC – is in the PM <sub>2.5</sub> size range. Many toxic and other aerosol and solid compounds are part of PM <sub>2.5</sub> .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NO <sub>x</sub> , sulfur oxides (SO <sub>x</sub> ), ammonia, and VOC.
Carbon Monoxide (CO)	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical O <sub>3</sub> . Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Nitrogen Dioxide (NO <sub>2</sub> )	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the “NO <sub>x</sub> ” group of O <sub>3</sub> precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.
Sulfur Dioxide (SO <sub>2</sub> )	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.
Lead (Pb)	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a TAC and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.

**Table 1. State and Federal Criteria Air Pollutant Effects and Sources**

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Visibility-Reducing Particles (VRP)	Reduces visibility. Produces haze. NOTE: Not directly related to the Regional Haze Program under the federal CAA, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.
Sulfate	Premature mortality and respiratory effects. Contributes to acid rain. Some TACs attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.
Hydrogen Sulfide (H <sub>2</sub> S)	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a TAC.	Industrial processes.

### *Toxic Air Contaminants*

In addition to criteria air pollutants, USEPA regulates hazardous air pollutants, also known as toxic air contaminants (TACs). TACs may be emitted by stationary, area, or mobile sources. Common stationary sources of TAC emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to local air district permit requirements. The other, often more significant, sources of TAC emissions are motor vehicles on freeways, high-volume roadways, or other areas with high numbers of diesel vehicles, such as distribution centers. Off-road mobile sources are also major contributors of TAC emissions and include construction equipment, ships, and trains.

TACs can be separated into carcinogens and noncarcinogens based on the nature of the effects associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Any exposure to a carcinogen poses some risk of contracting cancer. Noncarcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

### *State*

#### *California Clean Air Act*

Air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CCAA is administered by CARB at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CCAA requires all areas of the State to achieve and maintain the CAAQS by the earliest feasible date, which is determined in the most recent State Implementation Plan (SIP) based on existing emissions and reasonably foreseeable control measures that will be implemented in the future. The CAAQS pollutants are summarized in Table 2, which also includes attainment status designations for the Los Angeles County portion of the SCAB, under both federal and State classification descriptions. Table 3 lists the actual standard for each pollutant.

CARB, a department of the California Environmental Protection Agency, is responsible for the coordination and administration of federal and State air pollution control programs in California. In

this capacity, CARB conducts research, designates the CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. CARB also establishes emissions standards for motor vehicles sold in California, consumer products (i.e., hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

**Table 2. Federal and State Attainment Status  
Los Angeles County Portion of the South Coast Air Basin**

Pollutant	Federal Classification	State Classification
O <sub>3</sub> (1-hour standard)	Nonattainment, Extreme	Nonattainment
O <sub>3</sub> (8-hour standard)	Nonattainment, Extreme	Nonattainment
PM <sub>10</sub>	Attainment/Maintenance	Nonattainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment/Maintenance	Attainment
NO <sub>2</sub>	Attainment/Maintenance	Attainment
SO <sub>2</sub>	Attainment	Attainment
Pb	Nonattainment	Attainment
Note that only the Los Angeles County portion of the SCAB is nonattainment for NAAQS Pb. The remainder of the Basin is attainment.		

Sources: SCAQMD, 2019c.

**Table 3. Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	CAAQS <sup>a</sup>	NAAQS <sup>b</sup>
Ozone (O <sub>3</sub> )	1 hour	0.09 ppm <sup>c</sup>	—
	8 hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm
	8 hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	1 hour	0.18 ppm	100 ppb
	Annual Arithmetic Mean	0.030 ppm	53 ppb
Sulfur Dioxide (SO <sub>2</sub> )	1 hour	0.25 ppm	75 ppb
	24 hour	0.04 ppm	0.14 ppm
	Annual	—	0.03 ppm
Respirable Particulate Matter (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3 c</sup>	150 µg/m <sup>3</sup>
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	—
Fine Particulate Matter (PM <sub>2.5</sub> )	24 hour	—	35 µg/m <sup>3</sup>
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>
Sulfates	24 hour	25 µg/m <sup>3</sup>	—
Lead (Pb)	30-day average	1.5 µg/m <sup>3</sup>	—
	Rolling 3-Month Average	—	0.15 µg/m <sup>3</sup>
Hydrogen Sulfide	1 hour	0.03 ppm	—
Vinyl Chloride	24 hour	0.01 ppm	—



Pollutant	Averaging Time	CAAQS <sup>a</sup>	NAAQS <sup>b</sup>
<p>Notes:</p> <p><sup>a</sup> The CAAQS O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.</p> <p><sup>b</sup> The NAAQS, other than O<sub>3</sub> and those pollutants using annual arithmetic mean, are not to be exceeded more than once a year. The O<sub>3</sub> standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than 1.</p> <p><sup>c</sup> ppm = parts per million by volume; ppb = parts per billion; µg/m<sup>3</sup> = micrograms per cubic meter.</p>			

Source: CARB, 2016.

### State Implementation Plan

CARB is the lead agency for developing the SIP in California. Local air districts and other agencies prepare Air Quality Attainment Plans or Air Quality Management Plans (AQMPs) and submit them to CARB for review, approval, and incorporation into the applicable SIP. CARB also maintains air quality monitoring stations throughout the State in conjunction with local air districts. Data collected at these stations are used by CARB to classify air basins as being in attainment or nonattainment with respect to each pollutant and to monitor progress in attaining air quality standards.

The CCAA requires each area exceeding the CAAQS for O<sub>3</sub>, CO, SO<sub>2</sub>, and NO<sub>2</sub> to develop a plan aimed at achieving those standards. The California Health and Safety Code Section 40914 requires air districts to design a plan that achieves an annual reduction in districtwide emissions of 5 percent or more, averaged over every consecutive 3-year period.

To satisfy this requirement, local air districts must develop and implement air pollution reduction measures, which are described in their AQMPs, and outline strategies for achieving the CAAQS for any criteria pollutant for which the region is classified as nonattainment. CARB has established emission standards for vehicles sold in California and for various types of equipment. California gasoline specifications are governed by State and federal agencies. During the past decade, federal and State agencies have imposed numerous requirements on the production and sale of gasoline in California. CARB has also adopted control measures for diesel PM (DPM) and more stringent emissions standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators).

### State Criteria Air Pollutants

The State has established CAAQS for pollutants in addition to those that are regulated under the NAAQS (Table 3).

### State Toxic Air Contaminants

Particulate exhaust emissions from diesel-fueled engines (DPM) were identified as a TAC by CARB in 1998. Federal and State efforts to reduce DPM emissions have focused on the use of improved fuels, adding particulate filters to engines, and requiring the production of new technology engines that emit fewer exhaust particulates.

Diesel engines tend to produce a much higher ratio of fine particulates than other types of internal combustion engines. The fine particles that make up DPM tend to penetrate deep into the lungs, and the rough surfaces of these particles makes it easy for them to bind with other toxins within the exhaust, thus increasing the hazards of particle inhalation. Long-term exposure to DPM is known to lead to chronic serious health problems including cardiovascular disease, cardiopulmonary disease, and lung cancer.

TACs in California are regulated primarily through the *Toxic Air Contaminant Identification and Control Act* (Chapter 1047, *Assembly Bill* [AB] 1807, Statutes of 1983) and the *Air Toxics "Hot Spots" Information and Assessment Act* (Chapter 1252, AB2588, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review must occur before CARB can designate a substance as a TAC. The *Air Toxics "Hot Spots" Information and Assessment Act* requires that TAC emissions from stationary sources be quantified and compiled into an inventory according to criteria and guidelines developed by CARB, and if directed to do so by the local air district, a Health Risk Assessment (HRA) must be prepared to determine the potential health impacts of such emissions.

## Regional

### *South Coast Air Quality Management District*

In Los Angeles County, SCAQMD is the agency responsible for protecting public health and welfare through the administration of federal and State air quality laws and policies. Included in SCAQMD's tasks are monitoring of air pollution, preparation of AQMPs, and promulgation of rules and regulations.

SCAQMD monitors air quality within the project area and the SCAB, which includes Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and the San Diego county line to the south. Air quality plans describe air pollution control strategies to be implemented by a city, county, or regional air district. The primary purpose of an air quality plan is to bring an area that does not attain federal or state air quality standards into compliance with those standards pursuant to the requirements of the CAA and CCAA.

The most recent AQMP was adopted by the Southern California Association of Governments (SCAG) in 2016 and is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air (SCAQMD, 2016). The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O<sub>3</sub> standard, the 2012 annual PM<sub>2.5</sub> standard, and the 2006 24-hour PM<sub>2.5</sub> standard.

Through the attainment planning process, SCAQMD develops rules and regulations to regulate sources of air pollution in the Basin. The proposed project would be subject to the adopted SCAQMD rules and regulations listed below:

**SCAQMD Rule 402—Nuisance.** This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause, or have a natural tendency to cause, injury or damage to business or property.

**SCAQMD Rule 403—Fugitive Dust.** This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source. During construction of the project, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earthmoving and grading activities. These measures would include site prewatering and rewatering as necessary to maintain sufficient soil moisture content.

### *Southern California Association of Governments*

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties. SCAG addresses regional issues related to transportation, the economy, community development, and the environment. SCAG is the federally designated metropolitan

planning organization (MPO) for most of the southern California region and the largest MPO in the nation. As required by federal and State law, SCAG develops plans pertaining to transportation, growth management, hazardous waste management, housing, and air quality. With respect to air quality planning, SCAG has prepared the *Regional Comprehensive Plan and Guide*, which includes Growth Management and Regional Mobility chapters that support the land use and transportation components of the AQMP. These chapters are used in the preparation of air quality forecasts and the consistency analysis included in the AQMP.

#### Local

##### *County of San Bernardino General Plan Conservation Element (Air Quality)*

Since the project site is not within the precincts of the City of Chino, the applicable general plan would be the County of San Bernardino General Plan (County, 2007). The General Plan text was adopted by the Board of Supervisors on March 13, 2007 and became effective on April 12, 2007. The Air Quality plan is contained in Section V.C.3 within the Conservation Element. Policies CO 4.1 through 4.12 pertain to Air Quality, while policy 4.13 pertains to greenhouse gas emissions. The following policies are applicable to the project: CO 4.1 (dust control), CO 4.2 (coordination with SCAQMD), CO 4.5 (energy consumption) and CO 4.6 (parking for alternative fuel vehicles).

## 6.0 THRESHOLDS

SCAQMD methods recommend that air pollutant emissions be analyzed in regional and local contexts. Regional emissions refer to all emissions that would be associated with construction and operation of a project, while local emissions refer only to those emissions that would be produced by sources located on the project site.

The California Air Pollution Control Officers Association's (CAPCOA) California Emissions Estimator Model, Version 2016.3.2 (CalEEMod), was used to quantify emissions from anticipated construction and operations activities (CAPCOA, 2016). The CalEEMod model is approved by SCAQMD. CalEEMod uses emission factors for onsite and offsite emissions. Project construction-related and operation-related criteria air pollutant emissions were estimated using CalEEMod, then compared to SCAQMD's Mass Daily Threshold (MST), a regional daily emission threshold for onsite and offsite construction and operations activities and SCAQMD's Localized Significance Thresholds (LST), local thresholds that only apply to construction-related and operations-related onsite emissions to determine significance.

Mass Daily Thresholds (MDT), the regional daily emission thresholds for onsite and offsite construction and operations activities for the project are listed in Table 4.

**Table 4. Mass Daily Thresholds (lb/day)**

Pollutant	Construction	Operations
NO <sub>x</sub>	100	55
VOC	75	55
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
SO <sub>x</sub>	150	150
CO	550	550
Pb	3	3

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Source: SCAQMD CEQA Handbook (SCAQMD, 1993).

SCAQMD developed LST methods to determine, without dispersion modeling, if a project would cause or contribute to an exceedance of the applicable ambient air quality standard (SCAQMD, 2008). The LST methods are based on the maximum daily allowable construction-related and operations-related onsite emissions, the total area of the emissions source, the ambient air quality in each SRA in which the emission source is located, and the distance to the nearest exposed individual. For projects less than 5 acres in area, SCAQMD has developed lookup tables showing the maximum daily onsite emissions that would not cause an exceedance of any LST. Proposed project onsite emissions should be less than the LST values for the proposed activity to not violate or substantially contribute to an existing or projected air quality standard. SCAQMD's LST methods were used to assess local onsite and offsite emissions of criteria air pollutants and precursors during construction and operation of the project. SCAQMD's LST methods were used in this analysis to evaluate ambient air quality impacts from proposed project construction. The Chino Sensitive Receptor Area 1 (SRA 33) thresholds for 5 acre were used for the project site, as shown in Table 5.

The project site encompasses an area less than 5 acre; therefore, the LST analysis assumed a 5-acre site from the LST tables. The LST methods allow the analyst to utilize 25m if the distance from the fence line to the receptor is less than 25m.

**Table 5. Localized Significance Thresholds for SRA 33**

Project Phase	Source-Receptor Distance (m)	Localized Significance Threshold (lb/day)			
		NO <sub>x</sub> /NO <sub>2</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction	25	270	2,193	16	9
Operations	25	270	2,193	4	2

Notes: (1) Assumes a 5-acre project site for Source Receptor Area 33 and (2) SCAQMD has not developed LSTs for VOC or SO<sub>2</sub> emissions. VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = particulate matter less than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than 2.5 microns in diameter; lb/day = pounds per day

Source: South Coast Air Quality Management District, 2008.

## 7.0 IMPACT ANALYSIS

### Construction

Construction of the project is expected to begin in September 2020 and to last approximately 12 months till September 2021. Construction activity-generated air pollutant activities include typical on-road vehicles. These emissions sources would primarily use diesel fuel, emitting combustion exhaust gases such as VOC, CO, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Offsite emissions associated with vehicle trips to and from the project site during construction would be dispersed throughout the region and would have a nominal local impact in the project site vicinity. Air quality could be impacted by combustion emissions from fossil-fueled off-road equipment and construction vehicles; VOC emissions from applying asphalt, pavement markings, and road dust. Project construction emissions include exhaust, fugitive dust, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) from earthmoving activities, and vehicle trips to and from the project site for construction workers, material delivery, and hauling.

Construction activities for the proposed project would generate maximum daily emissions that are shown in Table 6. As shown, the peak daily construction emissions would not exceed any of the SCAQMD MDT thresholds for construction. Project emissions were also compared to the project-specific local emission LST threshold values from Table 5 to determine the significance of project impacts. As shown, the peak daily construction emissions would not exceed any of the SCAQMD daily LST thresholds for construction. Fugitive dust would be controlled per SCAQMD Rule 401 (*Visible Emissions*) and Rule 403 (*Fugitive Dust*), which apply to construction sites in the SCAB.

**Table 6. Maximum Daily Construction-Related Emissions (lb/day)**

Source/Description	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Total Construction	<b>19.2</b>	<b>40.5</b>	<b>21.8</b>	<b>0.04</b>	<b>9.7</b>	<b>5.9</b>
SCAQMD Regional Thresholds (MDT for Construction from Table 3)	75	100	550	150	150	55
Exceeds Regional Thresholds	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
SCAQMD Localized Thresholds (from Table 4)	NA	270	2,193	NA	16	9
Exceeds Localized Significance Threshold?	<b>NA</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: VOC – volatile organic compounds; NO <sub>x</sub> – nitrogen oxides; CO – carbon monoxide; SO <sub>2</sub> – sulfur dioxide; PM <sub>10</sub> – particulates under 10 microns; PM <sub>2.5</sub> – particulates under 2.5 microns. lb – pound; NA – not applicable; SCAQMD – South Coast Air Quality Management District; LST – Localized Significance Threshold; SRA – Source Receptor Area. Project emissions were estimated using the CalEEMod screening model.						

Source: See Attachment 1.

The data demonstrate that at no time during construction of the proposed project would maximum unmitigated daily emissions exceed an applicable SCAQMD threshold of significance for regional and local emissions. Local and regional air pollutant emissions generated by construction of the proposed project would not cause a violation of an air quality standard or contribute to an existing violation. Therefore, the project would have no significant effect on air quality because it would not violate any air quality standard.

### Operations

The day-to-day operations activity of the project after construction would generate offsite emissions. Operation-related offsite mobile-source emissions would primarily include vehicle trips by visitors to the temple. According to the Traffic Impact Analysis (June 2020) for this project, daily trip volumes to the temple are 247 trips per day Monday to Friday, 313 trips per day on Saturday and 905 trips per day on Sunday. Onsite operational emissions would include direct and indirect emissions that result from natural gas and electricity usage. The estimated daily project criteria air pollutant emissions from operations are shown in Table 7.

**Table 7. Maximum Daily Operational Emissions (lb/day)**

Source/Description	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Total Operational	<b>2.2</b>	<b>6.8</b>	<b>14.7</b>	<b>0.05</b>	<b>3.9</b>	<b>1.2</b>
SCAQMD Mass Daily Threshold (regional)	55	55	550	150	150	55
Exceed Regional Threshold?	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
SCAQMD Localized Threshold (from Table 4)	NA	270	2,193	N/A	4	2
Exceed Localized Significance Threshold?	<b>NA</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Table 7. Maximum Daily Operational Emissions (lb/day)**

Source/Description	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Notes: VOC – volatile organic compounds; NO <sub>x</sub> – nitrogen oxides; CO – carbon monoxide; SO <sub>2</sub> – sulfur dioxide; PM <sub>10</sub> – particulates under 10 microns; PM <sub>2.5</sub> – particulates under 2.5 microns. lb – pound; NA – not applicable; SCAQMD – South Coast Air Quality Management District; LST – Localized Significance Threshold; SRA – Source Receptor Area. Project emissions were estimated using the CalEEMod screening model.						

Source: See Attachment 1.

The data demonstrate that at no time during operation of the proposed project would maximum unmitigated daily emissions exceed an applicable SCAQMD threshold of significance for regional and local emissions. Local and regional air pollutant emissions generated by operation of the proposed project would not cause a violation of an air quality standard or contribute to an existing violation. Therefore, the project would have no significant effect on air quality because it would not violate any air quality standard.

## 8.0 REFERENCES

- California Air Pollution Control Officers Association. 2016. *California Emissions Estimator Model* (CalEEMod). Available: <http://www.caleemod.com/>
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- United States Geological Survey. 2018. *South Gate Quadrangle, California, Los Angeles County Topographic Map, 7.5-Minute Series*.

Sai Ram Mandir  
Air Quality Technical Memorandum

**Attachment 1**  
**CALEEMOD Output Files**

Sai Ram Mandir - South Coast AQMD Air District, Summer

**Sai Ram Mandir**  
**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	36.90	1000sqft	4.83	36,900.00	0

**1.2 Other Project Characteristics**

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

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

Project Characteristics -

Land Use - Lot acreage of 4.83 acre from the CUP application while the square footage is total of place of worship (32,400 sq ft) plus caretaker office (4,500 sq ft)

Construction Phase - Assume one year for construction duration.

Grading - Assume whole site will be graded during site preparation and area of place of worship will be further graded during the grading phase. Assume there will be no soil import of export.

Vehicle Trips - Matched wkday/Sat/Sun trip rate to Traffic Impact Analysis, June 28, 2020

Construction Off-road Equipment Mitigation - See Table 3-7 of WRAP Fugitive Dust Handbook for PM10/PM2.5 % reduction with watering of exposed area



## Sai Ram Mandir - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	4.00	2.83
tblGrading	AcresOfGrading	0.00	4.83
tblLandUse	LotAcreage	0.85	4.83
tblVehicleTrips	ST_TR	10.37	8.50
tblVehicleTrips	SU_TR	36.63	24.80
tblVehicleTrips	WD_TR	9.11	6.70

**2.0 Emissions Summary**

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Sai Ram Mandir - South Coast AQMD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8247	3.0000e-005	3.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.0800e-003	8.0800e-003	2.0000e-005		8.6100e-003
Energy	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.4242	386.4242	7.4100e-003	7.0800e-003	388.7205
Mobile	1.3395	6.4600	14.4513	0.0523	4.1501	0.0404	4.1905	1.1104	0.0377	1.1481		5,333.4056	5,333.4056	0.2629		5,339.9786
<b>Total</b>	<b>2.1996</b>	<b>6.7821</b>	<b>14.7256</b>	<b>0.0543</b>	<b>4.1501</b>	<b>0.0648</b>	<b>4.2150</b>	<b>1.1104</b>	<b>0.0621</b>	<b>1.1725</b>		<b>5,719.8378</b>	<b>5,719.8378</b>	<b>0.2704</b>	<b>7.0800e-003</b>	<b>5,728.7077</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8247	3.0000e-005	3.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.0800e-003	8.0800e-003	2.0000e-005		8.6100e-003
Energy	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.4242	386.4242	7.4100e-003	7.0800e-003	388.7205
Mobile	1.3395	6.4600	14.4513	0.0523	4.1501	0.0404	4.1905	1.1104	0.0377	1.1481		5,333.4056	5,333.4056	0.2629		5,339.9786
<b>Total</b>	<b>2.1996</b>	<b>6.7821</b>	<b>14.7256</b>	<b>0.0543</b>	<b>4.1501</b>	<b>0.0648</b>	<b>4.2150</b>	<b>1.1104</b>	<b>0.0621</b>	<b>1.1725</b>		<b>5,719.8378</b>	<b>5,719.8378</b>	<b>0.2704</b>	<b>7.0800e-003</b>	<b>5,728.7077</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

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

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/2/2021	5	5	
2	Grading	Grading	4/3/2021	4/14/2021	5	8	
3	Building Construction	Building Construction	4/15/2021	3/2/2022	5	230	
4	Paving	Paving	3/3/2022	3/28/2022	5	18	
5	Architectural Coating	Architectural Coating	3/29/2022	4/21/2022	5	18	

Acres of Grading (Site Preparation Phase): 4.83

Acres of Grading (Grading Phase): 2.83

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 55,350; Non-Residential Outdoor: 18,450; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Sai Ram Mandir - 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	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	16.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 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					19.0907	0.0000	19.0907	10.0413	0.0000	10.0413			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>19.0907</b>	<b>2.0445</b>	<b>21.1352</b>	<b>10.0413</b>	<b>1.8809</b>	<b>11.9222</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.2 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	0.0760	0.0493	0.6781	2.0000e-003	0.2012	1.4800e-003	0.2027	0.0534	1.3600e-003	0.0547		199.3326	199.3326	5.3600e-003		199.4666
<b>Total</b>	<b>0.0760</b>	<b>0.0493</b>	<b>0.6781</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.4800e-003</b>	<b>0.2027</b>	<b>0.0534</b>	<b>1.3600e-003</b>	<b>0.0547</b>		<b>199.3326</b>	<b>199.3326</b>	<b>5.3600e-003</b>		<b>199.4666</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4454	0.0000	7.4454	3.9161	0.0000	3.9161			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>7.4454</b>	<b>2.0445</b>	<b>9.4898</b>	<b>3.9161</b>	<b>1.8809</b>	<b>5.7970</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.2 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	0.0760	0.0493	0.6781	2.0000e-003	0.2012	1.4800e-003	0.2027	0.0534	1.3600e-003	0.0547		199.3326	199.3326	5.3600e-003		199.4666
<b>Total</b>	<b>0.0760</b>	<b>0.0493</b>	<b>0.6781</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.4800e-003</b>	<b>0.2027</b>	<b>0.0534</b>	<b>1.3600e-003</b>	<b>0.0547</b>		<b>199.3326</b>	<b>199.3326</b>	<b>5.3600e-003</b>		<b>199.4666</b>

**3.3 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					6.3972	0.0000	6.3972	3.3507	0.0000	3.3507			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
<b>Total</b>	<b>2.2903</b>	<b>24.7367</b>	<b>15.8575</b>	<b>0.0296</b>	<b>6.3972</b>	<b>1.1599</b>	<b>7.5572</b>	<b>3.3507</b>	<b>1.0671</b>	<b>4.4179</b>		<b>2,871.9285</b>	<b>2,871.9285</b>	<b>0.9288</b>		<b>2,895.1495</b>



Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.3 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	0.0633	0.0411	0.5651	1.6700e-003	0.1677	1.2300e-003	0.1689	0.0445	1.1400e-003	0.0456		166.1105	166.1105	4.4700e-003		166.2222
<b>Total</b>	<b>0.0633</b>	<b>0.0411</b>	<b>0.5651</b>	<b>1.6700e-003</b>	<b>0.1677</b>	<b>1.2300e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1400e-003</b>	<b>0.0456</b>		<b>166.1105</b>	<b>166.1105</b>	<b>4.4700e-003</b>		<b>166.2222</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4949	0.0000	2.4949	1.3068	0.0000	1.3068			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
<b>Total</b>	<b>2.2903</b>	<b>24.7367</b>	<b>15.8575</b>	<b>0.0296</b>	<b>2.4949</b>	<b>1.1599</b>	<b>3.6548</b>	<b>1.3068</b>	<b>1.0671</b>	<b>2.3739</b>	<b>0.0000</b>	<b>2,871.9285</b>	<b>2,871.9285</b>	<b>0.9288</b>		<b>2,895.1495</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.3 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	0.0633	0.0411	0.5651	1.6700e-003	0.1677	1.2300e-003	0.1689	0.0445	1.1400e-003	0.0456		166.1105	166.1105	4.4700e-003		166.2222
<b>Total</b>	<b>0.0633</b>	<b>0.0411</b>	<b>0.5651</b>	<b>1.6700e-003</b>	<b>0.1677</b>	<b>1.2300e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1400e-003</b>	<b>0.0456</b>		<b>166.1105</b>	<b>166.1105</b>	<b>4.4700e-003</b>		<b>166.2222</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

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

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.4 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	0.0167	0.5723	0.1358	1.5300e-003	0.0384	1.1500e-003	0.0396	0.0111	1.1000e-003	0.0122		163.4631	163.4631	9.8900e-003		163.7103
Worker	0.0675	0.0438	0.6028	1.7800e-003	0.1788	1.3200e-003	0.1802	0.0474	1.2100e-003	0.0486		177.1845	177.1845	4.7600e-003		177.3037
<b>Total</b>	<b>0.0842</b>	<b>0.6161</b>	<b>0.7386</b>	<b>3.3100e-003</b>	<b>0.2172</b>	<b>2.4700e-003</b>	<b>0.2197</b>	<b>0.0585</b>	<b>2.3100e-003</b>	<b>0.0608</b>		<b>340.6476</b>	<b>340.6476</b>	<b>0.0147</b>		<b>341.0139</b>

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.4 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	0.0167	0.5723	0.1358	1.5300e-003	0.0384	1.1500e-003	0.0396	0.0111	1.1000e-003	0.0122		163.4631	163.4631	9.8900e-003		163.7103
Worker	0.0675	0.0438	0.6028	1.7800e-003	0.1788	1.3200e-003	0.1802	0.0474	1.2100e-003	0.0486		177.1845	177.1845	4.7600e-003		177.3037
<b>Total</b>	<b>0.0842</b>	<b>0.6161</b>	<b>0.7386</b>	<b>3.3100e-003</b>	<b>0.2172</b>	<b>2.4700e-003</b>	<b>0.2197</b>	<b>0.0585</b>	<b>2.3100e-003</b>	<b>0.0608</b>		<b>340.6476</b>	<b>340.6476</b>	<b>0.0147</b>		<b>341.0139</b>

**3.4 Building Construction - 2022**

**Unmitigated Construction On-Site**

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

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.4 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	0.0157	0.5432	0.1283	1.5200e-003	0.0384	1.0000e-003	0.0394	0.0111	9.5000e-004	0.0120		162.0355	162.0355	9.5200e-003		162.2735
Worker	0.0634	0.0396	0.5574	1.7100e-003	0.1788	1.2800e-003	0.1801	0.0474	1.1800e-003	0.0486		170.8358	170.8358	4.3100e-003		170.9435
<b>Total</b>	<b>0.0790</b>	<b>0.5828</b>	<b>0.6857</b>	<b>3.2300e-003</b>	<b>0.2172</b>	<b>2.2800e-003</b>	<b>0.2195</b>	<b>0.0585</b>	<b>2.1300e-003</b>	<b>0.0606</b>		<b>332.8713</b>	<b>332.8713</b>	<b>0.0138</b>		<b>333.2169</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.4 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	0.0157	0.5432	0.1283	1.5200e-003	0.0384	1.0000e-003	0.0394	0.0111	9.5000e-004	0.0120		162.0355	162.0355	9.5200e-003		162.2735
Worker	0.0634	0.0396	0.5574	1.7100e-003	0.1788	1.2800e-003	0.1801	0.0474	1.1800e-003	0.0486		170.8358	170.8358	4.3100e-003		170.9435
<b>Total</b>	<b>0.0790</b>	<b>0.5828</b>	<b>0.6857</b>	<b>3.2300e-003</b>	<b>0.2172</b>	<b>2.2800e-003</b>	<b>0.2195</b>	<b>0.0585</b>	<b>2.1300e-003</b>	<b>0.0606</b>		<b>332.8713</b>	<b>332.8713</b>	<b>0.0138</b>		<b>333.2169</b>

**3.5 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	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9765</b>	<b>9.5221</b>	<b>12.1940</b>	<b>0.0189</b>		<b>0.4877</b>	<b>0.4877</b>		<b>0.4504</b>	<b>0.4504</b>		<b>1,805.1297</b>	<b>1,805.1297</b>	<b>0.5672</b>		<b>1,819.3091</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.5 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	0.0792	0.0495	0.6967	2.1400e-003	0.2236	1.6000e-003	0.2252	0.0593	1.4700e-003	0.0608		213.5448	213.5448	5.3800e-003		213.6794
<b>Total</b>	<b>0.0792</b>	<b>0.0495</b>	<b>0.6967</b>	<b>2.1400e-003</b>	<b>0.2236</b>	<b>1.6000e-003</b>	<b>0.2252</b>	<b>0.0593</b>	<b>1.4700e-003</b>	<b>0.0608</b>		<b>213.5448</b>	<b>213.5448</b>	<b>5.3800e-003</b>		<b>213.6794</b>

**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	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9765</b>	<b>9.5221</b>	<b>12.1940</b>	<b>0.0189</b>		<b>0.4877</b>	<b>0.4877</b>		<b>0.4504</b>	<b>0.4504</b>	<b>0.0000</b>	<b>1,805.1297</b>	<b>1,805.1297</b>	<b>0.5672</b>		<b>1,819.3091</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.5 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	0.0792	0.0495	0.6967	2.1400e-003	0.2236	1.6000e-003	0.2252	0.0593	1.4700e-003	0.0608		213.5448	213.5448	5.3800e-003		213.6794
<b>Total</b>	<b>0.0792</b>	<b>0.0495</b>	<b>0.6967</b>	<b>2.1400e-003</b>	<b>0.2236</b>	<b>1.6000e-003</b>	<b>0.2252</b>	<b>0.0593</b>	<b>1.4700e-003</b>	<b>0.0608</b>		<b>213.5448</b>	<b>213.5448</b>	<b>5.3800e-003</b>		<b>213.6794</b>

**3.6 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	19.0035					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
<b>Total</b>	<b>19.2080</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>



Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.6 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	0.0119	7.4200e-003	0.1045	3.2000e-004	0.0335	2.4000e-004	0.0338	8.8900e-003	2.2000e-004	9.1100e-003		32.0317	32.0317	8.1000e-004		32.0519
<b>Total</b>	<b>0.0119</b>	<b>7.4200e-003</b>	<b>0.1045</b>	<b>3.2000e-004</b>	<b>0.0335</b>	<b>2.4000e-004</b>	<b>0.0338</b>	<b>8.8900e-003</b>	<b>2.2000e-004</b>	<b>9.1100e-003</b>		<b>32.0317</b>	<b>32.0317</b>	<b>8.1000e-004</b>		<b>32.0519</b>

**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	19.0035					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
<b>Total</b>	<b>19.2080</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**3.6 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	0.0119	7.4200e-003	0.1045	3.2000e-004	0.0335	2.4000e-004	0.0338	8.8900e-003	2.2000e-004	9.1100e-003		32.0317	32.0317	8.1000e-004		32.0519
<b>Total</b>	<b>0.0119</b>	<b>7.4200e-003</b>	<b>0.1045</b>	<b>3.2000e-004</b>	<b>0.0335</b>	<b>2.4000e-004</b>	<b>0.0338</b>	<b>8.8900e-003</b>	<b>2.2000e-004</b>	<b>9.1100e-003</b>		<b>32.0317</b>	<b>32.0317</b>	<b>8.1000e-004</b>		<b>32.0519</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Sai Ram Mandir - South Coast AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3395	6.4600	14.4513	0.0523	4.1501	0.0404	4.1905	1.1104	0.0377	1.1481		5,333.4056	5,333.4056	0.2629		5,339.9786
Unmitigated	1.3395	6.4600	14.4513	0.0523	4.1501	0.0404	4.1905	1.1104	0.0377	1.1481		5,333.4056	5,333.4056	0.2629		5,339.9786

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	247.23	313.65	915.12	751,022	751,022
Total	247.23	313.65	915.12	751,022	751,022

4.3 Trip Type Information

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

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

5.0 Energy Detail

Historical Energy Use: N

Sai Ram Mandir - South Coast AQMD Air District, Summer

**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	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.4242	386.4242	7.4100e-003	7.0800e-003	388.7205
NaturalGas Unmitigated	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.4242	386.4242	7.4100e-003	7.0800e-003	388.7205

**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					
Place of Worship	3284.61	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.4242	386.4242	7.4100e-003	7.0800e-003	388.7205
<b>Total</b>		<b>0.0354</b>	<b>0.3220</b>	<b>0.2705</b>	<b>1.9300e-003</b>		<b>0.0245</b>	<b>0.0245</b>		<b>0.0245</b>	<b>0.0245</b>		<b>386.4242</b>	<b>386.4242</b>	<b>7.4100e-003</b>	<b>7.0800e-003</b>	<b>388.7205</b>

Sai Ram Mandir - South Coast AQMD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Place of Worship	3.28461	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.4242	386.4242	7.4100e-003	7.0800e-003	388.7205
<b>Total</b>		<b>0.0354</b>	<b>0.3220</b>	<b>0.2705</b>	<b>1.9300e-003</b>		<b>0.0245</b>	<b>0.0245</b>		<b>0.0245</b>	<b>0.0245</b>		<b>386.4242</b>	<b>386.4242</b>	<b>7.4100e-003</b>	<b>7.0800e-003</b>	<b>388.7205</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8247	3.0000e-005	3.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.0800e-003	8.0800e-003	2.0000e-005		8.6100e-003
Unmitigated	0.8247	3.0000e-005	3.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.0800e-003	8.0800e-003	2.0000e-005		8.6100e-003

Sai Ram Mandir - South Coast AQMD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0937					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7306					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5000e-004	3.0000e-005	3.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.0800e-003	8.0800e-003	2.0000e-005		8.6100e-003
<b>Total</b>	<b>0.8247</b>	<b>3.0000e-005</b>	<b>3.7700e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>8.0800e-003</b>	<b>8.0800e-003</b>	<b>2.0000e-005</b>		<b>8.6100e-003</b>

**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	0.0937					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7306					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5000e-004	3.0000e-005	3.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.0800e-003	8.0800e-003	2.0000e-005		8.6100e-003
<b>Total</b>	<b>0.8247</b>	<b>3.0000e-005</b>	<b>3.7700e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>8.0800e-003</b>	<b>8.0800e-003</b>	<b>2.0000e-005</b>		<b>8.6100e-003</b>

**7.0 Water Detail**

## Sai Ram Mandir - South Coast AQMD Air District, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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