

# **APPENDIX C AIR QUALITY AND GREENHOUSE GAS EMISSIONS STUDY**





# Blackhall Studios-Santa Clarita Project

## Air Quality and Greenhouse Gas Emissions Study

*prepared for*

**LA Railroad 93, LLC**  
1415 Constitution Road SE  
Atlanta, Georgia 30316  
Contact: Jeff Weber

*prepared by*

**Rincon Consultants, Inc.**  
250 East 1st Street, Suite 1400  
Los Angeles, California 90012

**February 2023**



**RINCON CONSULTANTS, INC.**

Environmental Scientists | Planners | Engineers

[rinconconsultants.com](http://rinconconsultants.com)



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Appendix A Air Quality and Greenhouse Gas Modeling Results

# 1 Project Description

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## 1.1 Introduction

This report details the analysis of potential air quality and greenhouse gas (GHG) impacts associated with the construction and operation of the proposed Blackhall Studios Project (herein referred to as “proposed project” or “project”) in Santa Clarita, California. Rincon Consultants, Inc. (Rincon) prepared this study under contract to LA Railroad 93, LLC for use by the City of Santa Clarita in support of environmental documentation being prepared for the project pursuant to the California Environmental Quality Act (CEQA).

## 1.2 Project Summary

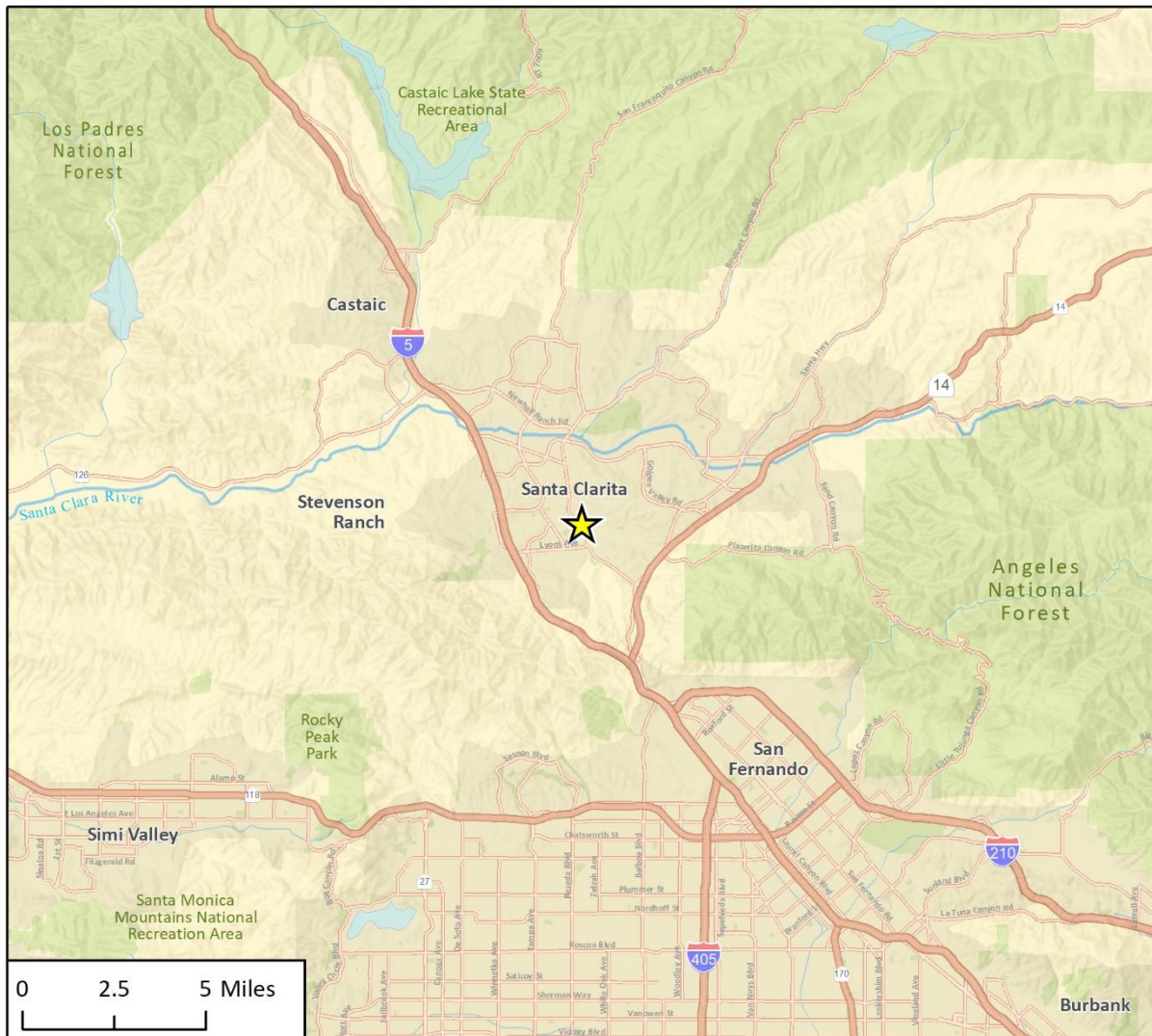
### **Project Location**

The project site is in the City of Santa Clarita in Los Angeles County, California. The regional location of the project site is shown in Figure 1. The 93.5-acre project site is located east of Railroad Avenue and north of 13<sup>th</sup> Street. The project location is depicted in Figure 2. Adjacent land uses include residential developments to the north and east, and commercial and light industrial uses to the south and west. Undeveloped land is also adjacent to the northeast of the parcel. Land uses in the greater vicinity include residential, commercial, and light industrial, as well as oilfields located approximately one mile to the east. The Newhall Metrolink right-of-way is located along the property’s western boundary, parallel to Railroad Avenue. An existing developed and fenced utility corridor on Metropolitan Water District of Southern California property forms the eastern boundary, which is flanked by residential development along Alderbrook Drive to the east.

### **Project Description**

Blackhall Studios – Santa Clarita is a state-of-the-art, full-service film and television studio campus that is planned for the currently-vacant 93.5-acre parcel of land situated at the northeast corner of Railroad Avenue and 13<sup>th</sup> Street. The campus overall building total area is approximately 1,294,500 square feet in multiple use types. A five-level (four elevated) parking structure is also included in the proposed project. A detailed statistical summary of buildings and uses is included on the Project Site Plans, included with this application. The overall site includes approximately 476,000 square feet of sound stages; approximately 571,000 square feet of workshops, warehouses and support uses; approximately 210,000 square feet of production and administrative offices; and approximately 37,500 square feet of catering and other specialty services. The project proposes a bridge across Placerita Creek to access a graded employee parking area on the north side of Placerita Creek. The EIR also evaluates the adjacent 11.4 acre Metropolitan Water District (MWD) right of way parcel, which may potentially be utilized for excess parking, subject to agreement with MWD. See Figure 2 for the project site design features.

Figure 1 Regional Location



★ Project Location

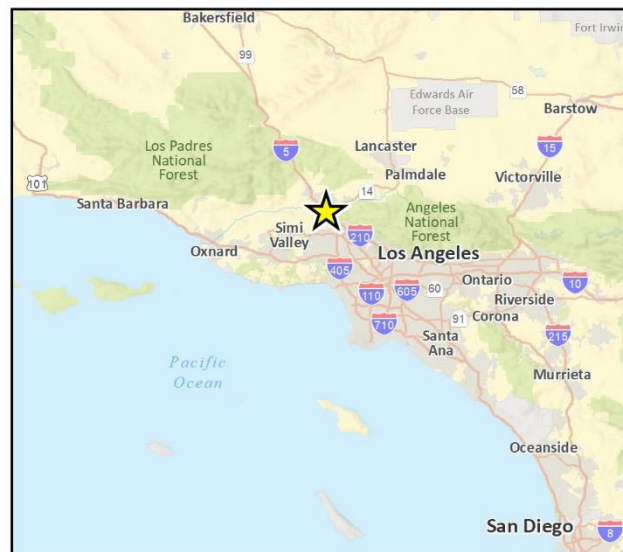


Fig. 1 Regional Location



Figure 2 Project Location and Project Design Features



## 2 Background

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### 2.1 Air Quality Background

#### **Local Climate and Meteorology**

The project area is within the South Coast Air Basin (SCAB), which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area in Riverside County. The regional climate in the SCAB is semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the SCAB is primarily influenced by meteorology and a wide range of emission sources, such as dense population centers, substantial vehicular traffic, and industry. The South Coast Air Quality and Management District (SCAQMD) monitors and regulates local air quality in Riverside County.

#### **Air Quality Regulations**

##### *Federal Air Quality Regulations*

Ambient Air Quality Standards represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409].

The U.S. Environmental Protection Agency (USEPA) has set primary and secondary National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter with a diameter of up to ten microns (PM<sub>10</sub>) and up to 2.5 microns (PM<sub>2.5</sub>), and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. Table 1 lists the current federal and State standards for regulated pollutants.

**Table 1 Federal and State Ambient Air Quality Standards**

Pollutant	Federal Standard	California Standard
Ozone	0.070 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.070 ppm (8-hr avg)
Carbon Monoxide	35.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)	20.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)
Nitrogen Dioxide	0.100 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.075 ppm (1-hr avg) 0.5 ppm (3-hr avg) 0.14 ppm (24-hr avg) 0.030 ppm (annual avg)	0.25 ppm (1-hr avg) 0.04 ppm (24-hr avg)
Lead	0.15 µg/m <sup>3</sup> (rolling 3-month avg) 1.5 µg/m <sup>3</sup> (calendar quarter)	1.5 µg/m <sup>3</sup> (30-day avg)
Particulate Matter (PM <sub>10</sub> )	150 µg/m <sup>3</sup> (24-hr avg)	50 µg/m <sup>3</sup> (24-hr avg) 20 µg/m <sup>3</sup> (annual avg)
Particulate Matter (PM <sub>2.5</sub> )	35 µg/m <sup>3</sup> (24-hr avg) 12 µg/m <sup>3</sup> (annual avg)	12 µg/m <sup>3</sup> (annual avg)
Visibility-Reducing Particles	No Federal Standards	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 - 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape. (8-hr avg)
Sulfates	No Federal Standards	25 µg/m <sup>3</sup> (24-hr avg)
Hydrogen Sulfide	No Federal Standards	0.03 ppm (1-hr avg)
Vinyl Chloride	No Federal Standards	0.01 ppm (24-hr avg)

ppm= parts per million; µg/m<sup>3</sup> = micrograms per cubic meter  
Source: CARB 2016

### *State Air Quality Regulations*

#### **CALIFORNIA AMBIENT AIR QUALITY STANDARDS**

The California Clean Air Act (CCAA) was enacted in 1988 (California Health & Safety Code (H&SC) Section 39000 et seq.). While USEPA is the federal agency designated to administer air quality regulation, the California Air Resources Board (CARB) is the state equivalent in the California Environmental Protection Agency (CalEPA). Under the CCAA the State has developed the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the NAAQS. Table 1 lists the current State standards for regulated pollutants. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Like the federal CAA, the CCAA classifies specific geographic areas as either “attainment” or “nonattainment” areas for each pollutant, based on the comparison of measured data within the CAAQS.

California is divided geographically into 15 air basins for managing the air resources of the State on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or

State attainment for a criteria pollutant, the basin is classified as a nonattainment area for that pollutant. Under the CAA, once a nonattainment area has achieved the air quality standards for a criteria pollutant, it may be re-designated to an attainment area for that pollutant. To be re-designated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. Areas that have been re-designated to attainment are called maintenance areas.

The SCAB is designated non-attainment (extreme) for 1-hour and 8-hour NAAQS and non-attainment (serious) for the PM<sub>2.5</sub> NAAQS. The air basin is also designated non-attainment for the ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> CAAQS (South Coast Air Quality Management District [SCAQMD] 2016). The Basin is designated unclassifiable or in attainment for all other federal and State standards.

### **TOXIC AIR CONTAMINANTS**

A toxic air contaminant (TAC) is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

TACs include both organic and inorganic chemical substances. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM); however, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs commonly associated with gasoline dispensing stations include the organic compounds of benzene, toluene, and xylene. Benzene is a known human carcinogen and can result in short-term acute and long-term chronic health impacts (USEPA n.d.).

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill (SB) 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the

statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

### **STATE IMPLEMENTATION PLAN**

The federal CAA Amendments mandate that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. The SIP is a collection of documents that set forth the state's strategies for achieving the NAAQS and CAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls. CARB is the lead agency for all purposes related to the SIP under state law. Local air districts are responsible for preparing and implementing air quality attainment plans for pollutants for which the district is in non-compliance; the plans are incorporated into the SIP. Additionally, other agencies such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

#### *Local Air Quality Regulations*

### **SOUTH COAST AIR QUALITY MANAGEMENT PLAN**

The SCAQMD is required to monitor air pollutant levels to ensure that State and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs that serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The most significant air quality challenge in the Air Basin is to reduce NO<sub>x</sub> emissions to meet the 2037 ozone standard deadline for the non-Coachella Valley portion of the South Coast Air Basin, as NO<sub>x</sub> plays a critical role in the creation of ozone. The 2022 AQMP includes strategies to ensure the SCAQMD does its part to further the district's ability to meet the 2015 federal ozone standards. The district would need to reduce emissions of NO<sub>x</sub> by 67 percent beyond what is required by the adopted rules and regulations in 2037 to meet the 2015 federal ozone standard (SCAQMD 2022). The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other CAA measures to meet the 8-hour ozone standard. Since NO<sub>x</sub> emissions also lead to the formation of PM<sub>2.5</sub>, the NO<sub>x</sub> reductions needed to meet the ozone standards will likewise lead to improvement of PM<sub>2.5</sub> levels and attainment of annual PM<sub>2.5</sub> standards (SCAQMD 2017).<sup>1</sup>

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State, and local levels and industries. The majority of these emissions are from heavy-duty trucks, ships, and other State and federally-regulated mobile source emissions the majority of which are beyond SCAQMD's control. The SCAQMD has limited control over truck emissions with rules such as Rule 1196. The 2022 AQMP is composed of stationary and mobile source emission reductions including traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources

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<sup>1</sup> Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2016 AQMP for detailed discussion).

(e.g., aircraft, locomotives, and ocean-going vessels). These strategies are to be implemented in partnership with the CARB and U.S. EPA. The district will not meet the standard without significant federal action. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero- and low-emission technologies. Of the needed NOx emissions reductions, 46 percent will come from federal actions, 34 percent from CARB actions, and 20 percent will come directly from SCAQMD actions (SCAQMD 2022).

The AQMP also incorporates the transportation strategy and transportation control measures from SCAG's 2020-2045 RTP/SCS Plan (Connect SoCal) (SCAG 2020). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties, and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG coordinates with various air quality and transportation stakeholders in southern California to ensure compliance with the federal and State air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and State air quality plans to attain the NAAQS. Connect SoCal includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with measures prepared by SCAG (SCAQMD 2022). Connect SoCal and Transportation Control Measures, included as Appendix IV-C of the 2022 AQMP, are based on SCAG's Connect SoCal.

The 2022 AQMP forecasts the 2037 emissions inventories "with growth" based on SCAG's Connect SoCal. The region is projected to see a 12 percent growth in population, 17 percent growth in housing units, 11 percent growth in employment, and 5 percent growth in VMT between 2018 and 2037. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State, and federal levels (SCAQMD 2022).

Under State law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. Under State law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which its jurisdiction is in non-compliance. The SCAQMD updates the plan periodically. Each iteration of the SCAQMD's Air Quality Management Plan (AQMP) is an update of the previous plan and has a 20-year horizon. The latest AQMP, the 2016 AQMP, was adopted on March 3, 2017. It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal eight-hour ozone standard of 0.070 ppm that was finalized in 2015. The Final 2016 AQMP addresses several State and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models.

The Southern California Association of Governments' (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) are integrated into the 2016 AQMP. The 2016 AQMP builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the

area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The 2016 AQMP also demonstrates strategies for attainment of the new federal eight-hour ozone standard and vehicle miles travelled emissions offsets, pursuant to recent USEPA requirements (SCAQMD 2017).

### **CITY OF SANTA CLARITA GENERAL PLAN**

The City of Santa Clarita General Plan (2011) contains goals, policies, and recommendations that establish a framework for ensuring that changes to the built environment, whether public or private, aid in maintaining or improving specific communities while enhancing community qualities as a place for living, recreating, and working. The General Plan Conservation and Open Space Element contains the following policies that focus on documentation, maintenance, preservation, conservation, and enhancement of air quality.

- Policy CO 7.1.1: Through the mixed land use patterns and multi-modal circulation policies set forth in the Land Use and Circulation Elements, limit air pollution from transportation sources.
- Policy CO 7.1.2: Support the use of alternative fuel vehicles.
- Policy CO 7.1.3: Support alternative travel modes and new technologies, including infrastructure to support alternative fuel vehicles, as they become commercially available.
- Policy CO 7.3.1: Coordinate with local, regional, state, and federal agencies to develop and implement regional air quality policies and programs.

### **Criteria Pollutants**

#### *Ozone*

Ozone is produced by a photochemical reaction (triggered by sunlight) between  $\text{NO}_x$  and VOC. VOC are composed of non-methane hydrocarbons (with some specific exclusions), and  $\text{NO}_x$  is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and nitrogen dioxide.  $\text{NO}_x$  are formed during the combustion of fuels, while VOC are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high VOC and  $\text{NO}_x$  levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. In addition, because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans, including changes in breathing patterns, reduction of breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological changes (SCAQMD 2005). Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

#### *Carbon Monoxide*

Carbon monoxide is a localized pollutant that is found in high concentrations only near its source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is the incomplete combustion of petroleum fuels by automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of carbon monoxide include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood

stoves and fireplaces during the winter. The health effects of carbon monoxide are related to its affinity for hemoglobin in the blood. Carbon monoxide causes a number of health problems, including aggravation of some heart diseases (e.g., angina), reduced tolerance for exercise, impaired mental function, and impaired fetal development. At high levels of exposure, carbon monoxide reduces the amount of oxygen in the blood, leading to mortality (SCAQMD 2005).

### *Nitrogen Dioxide*

Nitrogen dioxide is a by-product of fuel combustion; the primary sources are motor vehicles and industrial boilers and furnaces. The principal form of NO<sub>x</sub> produced by combustion is nitric oxide, but nitric oxide reacts rapidly to form nitrogen dioxide, creating the mixture of nitric oxide and nitrogen dioxide commonly called NO<sub>x</sub>. Nitrogen dioxide is an acute irritant that can aggravate respiratory illnesses and symptoms, particularly in sensitive groups. A relationship between nitrogen dioxide and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility (SCAQMD 2005).

### *Sulfur Dioxide*

Sulfur dioxide is included in a group of highly reactive gases known as “oxides of sulfur.” The largest sources of sulfur dioxide emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of sulfur dioxide emissions include industrial processes such as extracting metal from ore and the burning of fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Sulfur dioxide is linked to a number of adverse effects on the respiratory system, including aggravation of respiratory diseases, such as asthma and emphysema, and reduced lung function (SCAQMD 2005).

### *Particulate Matter*

Suspended atmospheric PM<sub>10</sub> and PM<sub>2.5</sub> is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The characteristics, sources, and potential health effects associated with PM<sub>10</sub> and PM<sub>2.5</sub> can be very different. Major man-made sources of PM<sub>10</sub> are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. Elevated levels of PM<sub>10</sub> can cause respiratory irritation, reduced lung function, aggravation of cardiovascular disease, and cancer (USEPA 2020). PM<sub>2.5</sub> is generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. PM<sub>2.5</sub> is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems (CARB 2021a). Elevated levels of PM<sub>2.5</sub> can cause respiratory stress and decreased lung function and increase the risk of long-term disease. More than half of PM<sub>2.5</sub> that is inhaled into the lungs remains there. These materials can damage health by interfering with the body’s mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance. Suspended particulates can also reduce lung function, aggravate respiratory and cardiovascular diseases, increase mortality rates, and reduce lung function growth in children (SCAQMD 2005a).



## *Lead*

Lead is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial sources. In the early 1970s, the USEPA set national regulations to gradually reduce the lead content in gasoline. As a result of the USEPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (USEPA 2013). As a result of phasing out leaded gasoline, metal processing currently is the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. The health impacts of lead include behavioral and hearing disabilities in children and nervous system impairment (SCAQMD 2005a).

## *Toxic Air Contaminants*

A toxic air contaminant (TACs) is an air pollutant that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about 1/70<sup>th</sup> the diameter of a human hair) and, therefore, is a subset of PM<sub>2.5</sub>. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2021b).

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

## **Current Air Quality**

SCAQMD operates a network of air quality monitoring stations throughout the SCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The monitoring station located closest to the project site is the Santa Clarita station (22224 Placerita Canyon Road, Santa Clarita), located adjacent to the southeastern boundary of the project site. This monitoring station

measures ozone, CO, NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>. SO<sub>2</sub> and lead are not monitored at this station and since the area is designated unclassified/attainment for those pollutants current air quality for these pollutants is not included.

Table 2 reports ambient air quality measurements and indicates the number of days that each standard has been exceeded at the Santa Clarita station. The ambient air quality in the area exceeded the State and Federal hourly and 8-hour ozone standards in 2018, 2019, and 2020. Data was not available for exceedance days for PM<sub>10</sub> nor PM<sub>2.5</sub> emissions. The area did not exceed other air quality standards in 2018, 2019, or 2020.

**Table 2 Ambient Air Quality at the Monitoring Station**

Pollutant	2018	2019	2020
8 Hour Ozone (ppm), 8-Hour Average	0.106	0.106	0.122
Number of days above Federal standards (>0.070 ppm)	52	56	74
Number of days above State (>0.070 ppm)	53	57	75
Ozone (ppm), Worst Hour	0.132	0.128	0.148
Number of days above State standard (>0.09 ppm)	21	34	44
Number of days above Federal standard (>0.112 ppm)	3	1	10
Carbon Monoxide (ppm), Highest 8-Hour Average <sup>2</sup>	0.8	1.2	0.8
Number of days above State or Federal standard (>9.0 ppm)	0	0	0
Nitrogen Dioxide (ppm) - Worst Hour (Federal Measurements)	0.059	0.046	0.046
Number of days above State standard (>0.18 ppm)	0	0	0
Number of days above Federal standard (0.10 ppm)	0	0	0
Particulate Matter 10 microns, µg/m <sup>3</sup> , Worst 24 Hours	49.4	62.9	67.8
Number of days above Federal standard (>150 µg/m <sup>3</sup> )	*	0	*
Particulate Matter <2.5 microns, µg/m <sup>3</sup> , Worst 24 Hours	31.9	29.0	43.3
Number of days above Federal standard (>35 µg/m <sup>3</sup> )	*	*	*

\* Means there was insufficient data available to determine the value

<sup>1</sup>Source: CARB 2021a;<sup>2</sup>Source: USEPA 2022

## Sensitive Receptors

The term “sensitive receptor” refers to a person in the population who is more susceptible to health effects due to exposure to an air contaminant than the population at large or to a land use that may reasonably be associated with such a person. Examples include residences, schools, playgrounds, childcare centers, churches, athletic facilities, retirement homes, and long-term health care facilities. Sensitive receptors that may be affected by air quality impacts associated with project construction and operation include single family residences on Alderbrook Drive and Circle J Ranch Road along the eastern project site boundary, residential development south of Wiley Canyon Road/Via Princessa along the northern project site boundary, a mobile home park 180 feet west across Railroad Avenue, and residential developments 500 feet to the southeast and 500 feet to the west.

## 2.2 Greenhouse Gas Emissions Background

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The United Nations Intergovernmental Panel on Climate Change (IPCC) expressed that the rise and continued growth of atmospheric CO<sub>2</sub> concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatonnes of anthropogenic CO<sub>2</sub> was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021). Furthermore, since the late 1700s, estimated concentrations of CO<sub>2</sub>, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (USEPA 2021a). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature.

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxides (N<sub>2</sub>O), fluorinated gases such as hydrofluorocarbons and perfluorocarbons and sulfur hexafluoride (SF<sub>6</sub>). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Emissions of CO<sub>2</sub> are usually by-products of fossil fuel combustion, and CH<sub>4</sub> results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO<sub>2</sub>, include fluorinated gases and SF<sub>6</sub> (USEPA 2021a).

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO<sub>2</sub>) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO<sub>2</sub>e), which is the amount of GHG emitted multiplied by its GWP. Carbon

dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO<sub>2</sub> on a molecule per molecule basis (IPCC 2021).<sup>2</sup>

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2021). However, since 1750, estimated concentrations of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

## **Greenhouse Gas Emissions Inventory**

### *Global*

In 2015, worldwide anthropogenic totaled 47,000 million MT of CO<sub>2</sub>e, which is a 43 percent increase from 1990 GHG levels (USEPA 2021b). Specifically, 34,522 million metric tons (MMT) of CO<sub>2</sub>e of CO<sub>2</sub>, 8,241 MMT of CO<sub>2</sub>e of CH<sub>4</sub>, 2,997 MMT of CO<sub>2</sub>e of N<sub>2</sub>O, and 1,001 MMT of CO<sub>2</sub>e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and use (includes fuels used by vehicles and buildings), which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed for three percent and two percent was due to international transportation sources. These sources account for approximately 98 percent because there was a net sink of two percent from land-use change and forestry (USEPA 2021b).

### *United States*

Total U.S. GHG emissions were 6,558 MMT of CO<sub>2</sub>e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019; since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2021c).

### *California*

Based on the CARB California Greenhouse Gas Inventory for 2000-2019, California produced 418.2 MMT of CO<sub>2</sub>e in 2019, which is 7.2 MMT of CO<sub>2</sub>e lower than 2018 levels. The major source of GHG emissions in California is the transportation sector, which comprises 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 21 percent of the

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<sup>2</sup> The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

state's GHG emissions while electric power accounts for approximately 14 percent (CARB 2021c). The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO<sub>2</sub>e (CARB 2021b). The annual 2030 statewide target emissions level is 260 MMT of CO<sub>2</sub>e (CARB 2017).

### *Local*

The City of Santa Clarita Climate Action Plan (CAP) includes GHG inventories for the city (City of Santa Clarita 2012). In 2005, GHG emissions were estimated at 1,065,718 MT CO<sub>2</sub>e. Out of the total 2005 GHG emissions inventory, on-road transportation (i.e., gasoline and diesel consumption from motor vehicles on local roads and highways) accounted for 60 percent of the emissions, residential energy accounted for 18 percent, and commercial and industrial energy accounted for 13 percent. The remaining nine percent of GHG emissions was due to solid waste, off-road transportation, and other uses.

## **Potential Effects of Climate Change**

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21<sup>st</sup> century than were observed during the 20<sup>th</sup> century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature for the decade from 2006 to 2015 was approximately 0.87°C (0.75°C to 0.99°C) higher than the global mean surface temperature over the period from 1850 to 1900. Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations agree that Land-Surface Air Temperature as well as sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014 and 2018).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include loss in water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). While there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional projections (State of California 2018). Projections under "intermediate" climate change scenario<sup>3</sup> indicate that the average maximum daily temperatures in the San Marcos area will increase from historic (1961-1990)

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<sup>3</sup> The specific scenario referenced is the Representative Concentration Pathway (RCP) 4.5 scenario is considered a stabilization scenario in which under which societies attempt to reduce GHG emissions. Under this scenario global emissions peak around 2040 and then gradually decline.

average of 74.2°F to 79.8°F by 2099 (State of California 2018). Below is a summary of some of the potential effects that could be experienced in California due to climate change.

### *Air Quality*

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2018). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them (California Natural Resources Agency 2009).

### *Water Supply*

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

### *Hydrology and Sea Level Rise*

Climate change could affect the intensity and frequency of storms and flooding (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2020, observed by satellites, is approximately 3.3 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2020). Global mean sea levels in

2013 were about 0.23 meter higher than those of 1880 (National Aeronautics and Space Administration 2020). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise ranging between 0.25 to 0 1.01 meters by 2100 with the sea level ranges dependent on a low, intermediate, or high GHG emissions scenario (IPCC 2021). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

### *Agriculture*

California has an over \$50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2020). Higher CO<sub>2</sub> levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

### *Ecosystems and Wildlife*

Climate change, and the potential resulting changes in weather patterns, could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the annual average maximum daily temperatures in California could rise by 4.4 to 5.8°F in the next 50 years and by 5.6 to 8.8°F in the next century (State of California 2018). Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals related to: (1) timing of ecological events; (2) geographic distribution and range; (3) species' composition and the incidence of nonnative species within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018). Increases in wildfire would further remove sensitive habitat; increased severity in droughts would potentially starve plants and animals of water; and sea level rise will affect sensitive coastal ecosystems.

## **Greenhouse Gas Regulations**

### *Federal Regulations*

The U.S. Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) held that the USEPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that establishes

the GHG permitting thresholds that determine when CAA permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In 2014, the U.S. Supreme Court in *Utility Air Regulatory Group v. EPA* (134 S. Ct. 2427 [2014]) held that USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of Best Available Control Technology (BACT).

### *State Regulations*

#### **ASSEMBLY BILL 1493 - CALIFORNIA ADVANCED CLEAN CARS PROGRAM**

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, USEPA granted the waiver of CAA preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Pavley I regulates model years from 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs, and should provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

#### **ASSEMBLY BILL 32 - CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006**

California's major initiative for reducing GHG emissions is outlined in AB 32, the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and required CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 required CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO<sub>2</sub>e. The Scoping Plan was approved by CARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan Update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State's longer-term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014). Senate Bill 32 - California Global Warming Solutions Act of 2016

SB 32, signed into law on September 8, 2016, extended AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remained



unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and policies, such as SB 350 and SB 1383 (see below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of no more than 6 metric tons (MT) CO<sub>2</sub>e by 2030 and 2 MT CO<sub>2</sub>e by 2050 (CARB 2017).

## **2022 UPDATE TO THE CLIMATE CHANGE SCOPING PLAN**

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB published the Final 2022 Climate Change Scoping Plan in November 2022 (CARB 2022). The 2022 Update builds upon the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying new, technologically feasible, cost-effective, and equity-focused path to achieve California’s climate target. The 2022 Update includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands (NWL) to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Update assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan, addresses recent legislation and direction from Governor Newsom, extends and expands upon these earlier plans, and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California’s climate work. As stated in the 2022 Update, “The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state’s NWL and using a variety of mechanical approaches” (CARB 2022). Specifically, the 2022 Update:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California’s dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California’s most impacted communities as driving principles throughout the document.
- Incorporates the contribution of NWL to the State’s GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.

- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Update includes emissions and carbon sequestration in NWL and explores how NWL contribute to long-term climate goals. Under the Scoping Plan Scenario, California’s 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet our GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

### **SENATE BILL 375 - 2008 SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT**

SB 375, signed in August 2008, enhances the state’s ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state’s 18 major Metropolitan Planning Organizations (MPOs) to prepare a “sustainable communities strategy” (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. SCAG was assigned targets of an 8 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of sub regional plans by the sub regional councils of governments and the county transportation commissions to meet SB 375 requirements.

### **SENATE BILL 100 - CALIFORNIA RENEWABLES PORTFOLIO STANDARD PROGRAM**

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state’s Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

### **EXECUTIVE ORDER B-55-18 TO ACHIEVE CARBON NEUTRALITY**

On September 10, 2018, Governor Brown issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

### *California Building Standards Code*

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, and accessibility for persons with physical and sensory disabilities. These standards are updated every three years, with the 2022 California Building Standards went into effect on January 1, 2023.

## **PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS/ENERGY CODE**

CCR Title 24, Part 6 is the Building Energy Efficiency Standards, also referred to as the California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings to reduce California’s energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The 2022 standards continue to improve upon the previous (2019) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings (CEC 2022a). The 2022 Title 24 Standards “build on California’s technology innovations, encouraging energy efficient approaches to encourage building decarbonization, emphasizing in particular on heat pumps for space heating and water heating. The 2022 Energy Code also extends the benefits of photovoltaic and battery storage systems and other demand flexible technology to work in combinations with heat pumps to enable California buildings to be responsive to climate change. The Energy Code also strengthens ventilation standards to improve indoor air quality. Measure requirements for photovoltaic systems, needs to be determined on a project-by-project basis based on availability of roof space. This update provides crucial steps in the state’s progress toward 100 percent clean carbon neutrality by midcentury (CEC 2022b). The 2022 Energy Code is anticipated to reduce GHG emissions by 10 MMT of CO<sub>2</sub>e over the next 30 years and result in approximately 1.5 billion dollars in consumer savings (CEC 2022c). Compliance with Title 24 is enforced through the building permit process.

## **PART 11 – CALIFORNIA GREEN BUILDING STANDARDS**

Part 11 of the Title 24 Building Standards is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.” The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.

The mandatory standards require:

- Minimum 20 percent reduction in indoor water use relative to specified baseline levels;<sup>4</sup>
- Waste Reduction:
  - Minimum 65 percent non-hazardous construction/demolition waste diverted from landfills;

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<sup>4</sup> Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

- Non-residential and Multifamily dwellings with 5 or more units shall provide readily accessible areas identified for the depositing, storage and collection of nonhazardous materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals;
- Nonresidential: 100 percent of trees, stumps, rocks and associated vegetation soils resulting from primary land clearing shall be reused or recycled.
- Inspections of energy systems to ensure optimal working efficiency;
- Electric Vehicle (EV) Charging for New Construction:<sup>5</sup>
  - One- and two-family dwellings and town-houses with attached private garages: Dedicated circuitry to facilitate installation of electric vehicle (EV) charging;
  - Multifamily dwellings, hotels/motels with less than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable and at least 25 percent of the total number of parking spaces shall be EV Ready.
  - Multifamily dwellings, hotels/motels with greater than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable, at least 25 percent of the total number of parking spaces shall be EV Ready, and at least 5 percent of the total number of parking spaces shall be equipped with a Level 2 Charging Station.
  - Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
    - 0-9: no EV capable spaces or charging stations required;
    - 10 – 25: 4 EV capable spaces but no charging stations required;
    - 26 – 50: 8 EV capable spaces of which 2 must be equipped with charging stations;
    - 51 – 75: 13 EV capable spaces of which 3 must be equipped with charging stations;
    - 76 – 100: 17 EV capable spaces of which 4 must be equipped with charging stations;
    - 101 – 150: 25 EV capable spaces of which 6 must be equipped with charging stations;
    - 151 – 200: 35 EV capable spaces of which 9 must be equipped with charging stations;
    - >200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations;
  - Non-residential land uses shall comply with the following EV charging requirements for medium-duty and heavy-duty vehicles: Warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards.
- Bicycle Parking:
  - Non-residential short term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent

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<sup>5</sup> EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging. EV Ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations including a receptacle for future installation of a charger. See 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures including exceptions.

of new visitor motorized vehicle parking spaces with a minimum of one two-bike capacity rack.

- Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: Secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility.
- **Shade Trees (Non-Residential):**
  - Surface parking: Minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar);
  - Landscape areas: Minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years;
  - Hardscape areas: Minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities).

### *Regional and Local Regulations*

#### **2020-2045 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY**

On May 7, 2020, SCAG’s Regional Council adopted the 2020-2045 RTP/SCS (titled Connect SoCal) for federal transportation conformity purposes and considered approval of the full plan and for all other purposes within 120 days of this date. Following initial adoption, SCAG formally adopted the 2020-2045 RTP/SCS on September 3, 2020, to provide a roadmap for sensible ways to expand transportation options, improve air quality and bolster Southern California’s long-term economic viability. The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center-focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

#### **CITY OF SANTA CLARITA GENERAL PLAN**

The City’s General Plan Conservation and Open Space Element contains several regulatory requirements related to energy consumption and GHG emissions. The following applicable policies would promote efficient, sustainable, and environmentally appropriate energy systems:

- **Policy CO 8.1.3:** Revise codes and ordinances as needed to address energy conservation, including but not limited to the following:
  - Strengthen building codes for new construction and renovation to achieve a higher level of energy efficiency, with a goal of exceeding energy efficiency beyond that required by Title 24;
  - Adopt a Green Building Program to encourage green building practices and materials, along with appropriate ordinances and incentives;

- Require orientation of buildings to maximize passive solar heating during cool seasons, avoid solar heat gain during hot periods, enhance natural ventilation, promote effective use of daylight, and optimize opportunities for on-site solar generation;
- Encourage mitigation of the “heat island” effect through use of cool roofs, light-colored paving, and shading to reduce energy consumption for air conditioning.
- **Policy CO 8.3.1:** Evaluate site plans proposed for new development based on energy efficiency pursuant to LEED (Leadership in Energy and Environmental Design) standards for New Construction and Neighborhood Development, including the following: a) location efficiency; b) environmental preservation; c) compact, complete, and connected neighborhoods; and d) resource efficiency, including use of recycled materials and water.
- **Policy CO 8.3.2:** Promote construction of energy efficient buildings through requirements for LEED certification or through comparable alternative requirements as adopted by local ordinance.
- **Policy CO 8.3.6:** Require new development to use passive solar heating and cooling techniques in building design and construction, which may include but are not limited to building orientation, clerestory windows, skylights, placement and type of windows, overhangs to shade doors and windows, and use of light colored roofs, shade trees, and paving materials.
- **Policy CO 8.3.7:** Encourage the use of trees and landscaping to reduce heating and cooling energy loads, through shading of buildings and parking lots.
- **Policy CO 8.3.8:** Encourage energy-conserving heating and cooling systems and appliances, and energy-efficiency in windows and insulation, in all new construction.
- **Policy CO 8.3.9:** Limit excessive lighting levels, and encourage a reduction of lighting when businesses are closed to a level required for security.
- **Policy CO 8.3.10:** Provide incentives and technical assistance for installation of energy-efficient improvements in existing and new buildings.
- **Policy CO 8.3.11:** Consider allowing carbon off-sets for large development projects, if appropriate, which may include funding off-site projects or purchase of credits for other forms of mitigation, provided that any such mitigation shall be measurable and enforceable.
- **Policy CO 8.3.12:** Reduce extensive heat gain from paved surfaces through development standards wherever feasible.

### **CITY OF SANTA CLARITA CLIMATE ACTION PLAN**

The City of Santa Clarita adopted a Climate Action Plan in August 2012. The purpose of the CAP is to measure the amount of GHG emissions generated within the city and to develop strategies to reduce emissions in the future. The CAP includes a set of strategies the City can use to reduce the amount of communitywide GHG emissions. The 2005 baseline year GHG emissions inventory estimated municipal and communitywide emissions at 1,717,648 MT of CO<sub>2</sub>e. Of this total, on-road vehicles were the main source (60 percent) of GHG emissions in 2005 followed by residential energy use (18 percent) and commercial/industrial energy use (13 percent). Municipal source emissions make up approximately two percent of the total emissions (City of Santa Clarita 2012). Implementation of statewide measures and CAP measures would result in an annual reduction of approximately 702,293 MT of CO<sub>2</sub>e by 2020, which is approximately four percent below the 2005 baseline level (City of Santa Clarita 2012). As the CAP only addresses emissions and reductions through 2020, the Climate Action Plan is not applicable to the proposed project and is not discussed further in this document.

**CITY OF SANTA CLARITA GREEN BUILDING STANDARDS CODE**

Santa Clarita Municipal Code Section 25.01.010, *Adoption of the City Green Building Standards Code*, regulates the planning, design, operation, construction, use and occupancy of every new building or structure to ensure buildings have a more positive environmental impact and encourage sustainable construction practices.

**CITY OF SANTA CLARITA ENERGY CONSERVATION CODE**

Santa Clarita Municipal Code Section 24.01.010, *Adoption of the City Energy Conservation Code*, regulates the design, construction, alteration, installation, or repair of building envelopes, space-conditioning systems, water-heating systems, indoor lighting systems of buildings, outdoor lighting and signage, and certain equipment to enhance the efficiency and reduce energy use of buildings.

## 3 Methodology and Significance Thresholds

### 3.1 Methodology

Criteria pollutant and GHG emissions for project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. The input data and subsequent construction and operation emission estimates for the proposed project are discussed below. CalEEMod output files for the project are included in Appendix A to this report. Table 3 lists the type and size of buildings that would be constructed as part of the project and the comparable CalEEMod land use.

**Table 3 Summary of Project Land Uses**

Building Use	CalEEMod Land use	Unit Size	Unit
Sound Stages	Industrial Park	476,000	sf
Production Support	Industrial Park	571,000	sf
Catering & Specialty Services <sup>1</sup>	Office Park	33,700	sf
	Automobile Care Center	3,800	sf
Production & Admin Office	General Office Building	210,000	sf
Parking Structure (Covered)	Enclosed Parking with Elevator	822	spaces
		389,163	sf
Parking Structure (Uncovered)	Unenclosed Parking with Elevator	247	spaces
Onsite Ground Level Parking	Parking Lot	2,366	spaces
		821,548	sf
Paving	Other Asphalt Surfaces	1,042,894	sf

sf = square feet; N/A = not applicable

<sup>1</sup> Wash/detail is part of the overall 38,000 square feet of "Catering and Specialty Services" identified in the Project description.

### Construction Emissions

Project construction would primarily generate temporary criteria pollutant and GHG emissions from construction equipment operation onsite, construction worker vehicle trips to and from the site, and from export of materials off-site. Construction input data for CalEEMod include but are not limited to: (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the project site. The analysis assessed maximum daily emissions from individual construction activities, including site preparation, grading, building construction, paving, and architectural coating. Note that there would be no demolition phase since the existing site is vacant. Construction emissions were modeled in CalEEMod to start in April 2023 based on applicant provided information with completion anticipated in September 2025. Construction emissions associated with development of the proposed project were quantified by estimating the types and quantity of equipment that would be used on site during each of the construction phases, as provided by the model defaults. As a project design



feature, off-road diesel-powered construction equipment would meet or exceed the CARB and USEPA Tier 3 off-road emissions standards and be equipped with Level 3 diesel particulate filters at a minimum. Equipment may also be alternatively (non-diesel) fueled to reduce diesel exhaust emissions. Pursuant with applicant provided information, the CalEEMod equipment, greater than 50 horsepower, was changed to be equipped with CARB and USEPA rated Tier 3 engines with Level 3 diesel particulate filters. CalEEMod also estimates off-site emissions from worker, vendor, and hauling truck trips. The number of worker and vendor trips were based on CalEEMod defaults. The default trip lengths were used for all construction trips. To include onsite emissions the default worker trip lengths were increased by approximately 0.8 miles, which is the length of the project site. This accounts for onsite travel during construction. Also, it is assumed that less than 10-acres would be disturbed by onsite construction per day.

The project proposes a bridge across Placerita Creek to access a graded employee parking area on the north side of Placerita Creek. The EIR also evaluates the adjacent 11.4 acre Metropolitan Water District (MWD) right of way parcel, which may potentially be utilized for excess parking, subject to agreement with MWD. These features were included as part of the overall parking construction and are not analyzed separately in the analysis.

The quantity, duration, and the intensity of construction activity influences the amount of construction emissions and their related pollutant concentrations that occur at any one time. The emission forecasts modeled for this report reflect conservative assumptions where a relatively large amount of construction is occurring in a relatively intensive manner. If construction is delayed or occurs over a longer period, criteria pollutant emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in the CalEEMod, and/or (2) a less intensive buildout schedule (total annual emissions occurring over a greater number of days).

The SCAQMD recommends amortizing construction-related emissions over a 30-year period in conjunction with the proposed project's operational emissions (SCAQMD 2008b). This guidance is used in this analysis. Total construction GHG emissions resulting from a project were amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of the project.

## Operational Emissions

In CalEEMod, operational sources of criteria pollutant emissions include area, energy, and mobile sources. GHG emissions include water and solid waste sources in addition to area, energy, and mobile sources.

### *Area Sources*

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, USEPA, and emission factor values provided by the local air district (CAPCOA 2021).

### *Energy Sources*

Emissions from energy use include electricity and natural gas use. The emissions factors for natural gas combustion are based on USEPA's AP-42 (*Compilation of Air Pollutant Emissions Factors*) and California Climate Action Registry General Reporting Protocol (California Climate Action Registry 2009). Electricity emissions only apply to GHG emissions (as the electricity generation is an indirect

emission generated off-site and therefore not relevant for local and regional air quality conditions) and are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (kWh) (CAPCOA 2021). The project would be served by Southern California Edison (SCE). Therefore, SCE's specific energy intensity factors (i.e., the amount of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O per kWh) are used in the calculations of GHG emissions.

The annual electricity and natural gas consumption were adjusted using energy consumption data for the Blackhall Studios based in Atlanta, Georgia. The peak month electricity (kWh) and natural gas (kilo-British Thermal Units [kBtu]) consumption were selected and used to estimate the approximate annual energy consumption. The annual electricity and natural gas values from the Blackhall Studios in Atlanta were scaled based on the square footage difference (52 percent increase) between the Blackhall Studios in Atlanta and the proposed project. The annual electricity and natural gas consumed by the project would be approximately 8,460,355 kWh and 3,700,855 kBtu, which is conservatively high since the peak month usage were used to approximate an annual usage.

The proposed project will also include the operation of up to seven food trucks on a daily basis. The food trucks would be located in the southern portion of the site. Each station will be equipped with a 30 amp or greater electrical service and generators will not be used for the food trucks.

#### *Mobile Sources*

Mobile emissions are estimated by multiplying the project trip rate, average trip length, and the vehicle emission factors. The traffic consultant, Gibson Transportation Consulting, Inc., provided project-specific trip generations for trips to the sound stage, production support, and production office. Additionally, once operational, employees and guests of the proposed film studio would travel onsite using electric golf carts and vans with drivers may be used by the production staff. The project-specific trip generation rates provided are included in Appendix A. Water and Wastewater Sources

Operational emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for northern and southern California.

Similar to annual energy calculations, water consumed per year was estimated using peak monthly data from the Blackhall Studios in Atlanta with an adjustment factor based on the increased square footage of the project. Based on the calculations, the project would consume approximately 4,129,279 gallons per year.

#### *Solid Waste Sources*

Operational emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CAPCOA 2021). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery. The default assumptions were used in this analysis.

#### *Stationary Sources*

The proposed project would incorporate the use of six emergency back up generators. The generators would be 1,400 amp diesel studio generators. Generators would be tested for 20

minutes per month. SCAQMD permits assume that generators would operate up to 50 hours per year for testing purposes. An additional four hours of emergency use per year was assumed for a total of 54 hours of operation per year as a conservative estimate of emissions.

### Service Population

The project's per person GHG emissions were calculated by dividing total GHG emissions by the project's service population (employees). As provided by the applicant, the project would generate jobs for a total of 5,000 employees.

## 3.2 Significance Thresholds

### Air Quality

To determine whether a project would result in a significant impact to air quality, Appendix G of the CEQA Guidelines requires consideration of whether a project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### *Regional Significance Thresholds*

As discussed previously, the SCAQMD is the air pollution control agency responsible for protecting the people and the environment of the Basin from the effects of air pollution. Accordingly, the City evaluates project air quality emissions based on the quantitative emission thresholds established by the SCAQMD (2019). SCAQMD's significance thresholds for impacts to regional air quality are shown in Table 4.

**Table 4 SCAQMD Regional Significance Thresholds**

Pollutant	Mass Daily Emissions Thresholds (pounds per day)	
	Construction	Operation
VOC	75	55
NO <sub>x</sub>	100	55
CO	550	550
SO <sub>x</sub>	150	150
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55

VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxide; PM<sub>10</sub> = particulate matter with a diameter no more than 10 microns; PM<sub>2.5</sub> = particulate matter with a diameter no more than 2.5 microns  
Source: SCAQMD 2019

*Localized Significance Thresholds*

The SCAQMD has also developed Localized Significance Thresholds (LST) as a tool to assist lead agencies to analyze localized air quality impacts to sensitive receptors in the vicinity of the project. The SCAQMD’s LST Methodology outlines how to analyze localized impacts from common pollutants of concern including NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> (SCAQMD 2008a). Localized air quality impacts would occur if pollutant concentrations at sensitive receptors exceeded applicable NAAQS or CAAQS.

To minimize efforts, the SCAQMD developed mass rate lookup tables as a simple screening procedure. If a project’s onsite emissions do not exceed the screening levels for any pollutant, it can be concluded that the project would not cause or contribute to an adverse localized air quality impact. Screening levels are provided for various distances between the project boundary and the nearest sensitive receptor and various project site acreages. Screening levels increase, as the project distance between the boundary and the nearest receiver increases. This is because air pollutant dispersion increases with distance. Screening levels also increase as the acreage increases. This is because the distance between construction and operation sources and sensitive receptors increases with project acreage.

The LST mass rate lookup tables account for ambient pollutant concentrations based on the project’s source receptor area (SRA). The LST mass rate lookup tables account for ambient pollutant concentrations based on the project’s source receptor area (SRA). The LST methodology includes screening levels for 1-, 2-, and 5-acre sites at distances of 82 feet (25 meters), 164 feet (50 meters), 328 feet (100 meters), 656 feet (200 meters), 1,640 feet (500 meters). Screening levels are more stringent for smaller sites which represent a more concentrated release.

The project site is in SRA-13 (Santa Clarita Valley). Emissions were evaluated against the most stringent LST screening level distance. Emission thresholds for a five-acre site at a distance of 82 feet (25 meters) were used in the analysis for CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. For NO<sub>x</sub>, a distance of 164 feet (50 meters) was used.<sup>6</sup> The five-acre screening thresholds are used since it is assumed less than 10-acres are disturbed per day during construction. Applicable LST screening levels are shown in Table 5.

**Table 5 SCAQMD LST Screening Levels**

Pollutant	Mass Daily Emissions Thresholds (pounds per day)	
	Construction	Operation
NO <sub>x</sub> /NO <sub>2</sub>	236	236
CO	1,644	1,644
PM <sub>10</sub>	12	3
PM <sub>2.5</sub>	6	2

NO<sub>x</sub>/NO<sub>2</sub> = nitrogen oxides; CO = carbon monoxide; PM10 = particulate matter 10 micrometers in diameter or less; PM2.5 = fine particulate matter 2.5 micrometers in diameter or less

Notes: Source receptor area 13 for a 5-acre parcel at a distance of 82 feet (25 meters) except for NO<sub>x</sub> which is based on a distance of 164 feet (50 meters).

Source: SCAQMD 2009

<sup>6</sup> For most pollutants 25 meters is the most stringent screening distance. For NO<sub>x</sub> emissions, the most stringent screening distance is 50 meters. This is because at the emission source, the principal component of NO<sub>x</sub> is a mixture of NO (roughly 95 percent). Once emitted, NO reacts with the atmosphere to form NO<sub>2</sub> in the atmosphere. Due to the gradual decomposition of NO to form NO<sub>2</sub> health risks initially increase with distance (in the area where the decomposition rate exceeds dispersion rate) and then begin to decrease with distance.

## Greenhouse Gas Emissions

Based on Appendix G of the CEQA Guidelines, impacts related to GHG emissions from the project would be significant if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions.

Individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. As a result, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions.

CEQA Guidelines Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies or suggested by other experts, as long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7[c]). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130[f]). As a note, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem in the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of GHG emissions." Therefore, a lead agency can make a finding of less-than-significant for GHG emissions if a project complies with adopted programs, plans, policies, and/or other regulatory strategies to reduce GHG emissions.

The City of Santa Clarita has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not formally adopted a local plan for reducing GHG emissions subsequent to 2020. Neither SCAQMD, OPR, CARB, California Air Pollution Control Officers Association, nor any other State or applicable regional agency has adopted a numerical significance threshold for assessing GHG emissions that is applicable to the project. Therefore, the significance of projects' potential impacts with regard to GHG emissions and climate change will be assessed solely on consistency with plans and polices adopted for the purposes of reducing GHG emissions and mitigating the effects of climate change. The analysis has also quantified the project's GHG emissions for informational purposes.

## 4 Impact Analysis

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### 4.1 Air Quality Impact Analysis

**Threshold 1:** Would the project conflict with or obstruct implementation of the applicable air quality plan?

**Impact AQ-1** THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE 2016 AQMP. NO IMPACT WOULD OCCUR.

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#### SCAQMD 2016 Air Quality Management Plan Consistency

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. The 2022 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city general plans and the SCAG's 2020-2045 RTP/SCS socioeconomic forecast projections of regional population, housing, and employment growth (SCAQMD 2022a, SCAG 2020).

In the SCAG/s 2020-2045 RTP/SCS, the employment growth forecasted for the City of Santa Clarita in the year 2045 would be 105,200 employees. This is an increase of 14,000 employees compared to the 2016 employment baseline of 91,200 employees (SCAG 2020). The project would generate direct employment for 2,500 persons and 3,500 additional indirect induced jobs due to studio activities. This would be a total of 5,000 employees, which would be within the SCAG's projected 2045 employment increase of 14,000 employees. The project would not generate new housing. Therefore, the project would be consistent with the population, housing and employment projections utilized in the AQMP.

In addition, the AQMP provides strategies and measures to reach attainment with the thresholds for 8-hour and 1-hour ozone and  $PM_{2.5}$ . As shown in Table 6 and Table 7 below, the project would not generate criteria pollutant emissions that would exceed SCAQMD thresholds for ozone precursors (ROG and  $NO_x$ ) and  $PM_{2.5}$ , or any criteria pollutant threshold. Therefore, the project would not result in an increase in frequency or severity of existing air quality violations, cause or contribute to a new violation, or delay timely attainment of the air quality standards in the AQMP. As no regulatory exceedances occur, no mitigation is required for construction or operation of the project. Given the project's compliance with regulatory thresholds and SCAG 2045 employment forecasts, the project would be consistent with the AQMP.

**Threshold 2** Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

**Impact AQ-2 THE PROJECT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE IN OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS IN NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

## Project Generated Criteria Pollutants

### Construction

Project construction would involve site preparation, grading, building construction, paving, and architectural coating activities that have the potential to generate air pollutant emissions. Table 6 summarizes the estimated maximum daily emissions of VOC, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Emissions would not exceed the SCAQMD regional threshold. Furthermore, the project would implement all standard mitigation measures to control fugitive PM<sub>10</sub> dust. Therefore, project construction would not result in a cumulatively considerable net increase of criteria pollutant.

**Table 6 Construction Criteria Pollutant Emissions**

Year	Maximum Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Summer Emissions</b>						
2023	6	39	82	<1	22	6
2024	42	41	90	<1	26	7
2025	42	52	104	<1	26	7
Maximum Summer Emissions	42	52	104	<1	26	7
<b>Winter Emissions</b>						
2023	7	40	77	<1	22	6
2024	42	42	85	<1	26	7
2025	43	53	99	<1	26	7
Maximum Winter Emissions	43	53	99	<1	26	7
<b>Maximum Emissions</b>						
<b>Maximum Construction Emissions</b>	43	53	104	<1	26	7
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxide; PM<sub>10</sub> = particulate matter with a diameter no more than 10 microns; PM<sub>2.5</sub> = particulate matter with a diameter no more than 2.5 microns

Source: Table 2.1 "Overall Construction-mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards. No mitigation measures are required for this project. See CalEEMod worksheets in Appendix A.



## Operational

The project would generate criteria pollutants during operation. To determine whether a project would result in emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, a project's emissions are evaluated based on the quantitative emission thresholds established by the SCAQMD.

Table 7 summarizes the project's operational emissions by emission source (area, energy, and mobile). The emissions assume the four hours of emergency generator use occurs in one day as a conservative emissions scenario. As shown below, the emissions generated by operation of the proposed project would not exceed the SCAQMD's threshold for any criteria pollutant. Therefore, project would not contribute substantially to an existing or projected air quality violation. In addition, because criteria pollutant emissions and regional thresholds are cumulative in nature, the project would not result in a cumulatively considerable net increase of criteria pollutants.

**Table 7 Operational Criteria Pollutant Emissions**

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Summer Emissions</b>						
Area	28	<1	1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	21	23	220	<1	56	15
Generators	1	25	27	<1	1	1
Project Summer Emissions	51	49	248	<1	57	16
<b>Winter Emissions</b>						
Area	28	<1	1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	20	24	212	<1	56	15
Generators	1	25	27	<1	1	1
Project Winter Emissions	50	50	240	<1	57	16
<b>Project Emissions</b>						
<b>Project Emissions</b>	<b>51</b>	<b>50</b>	<b>248</b>	<b>&lt;1</b>	<b>57</b>	<b>16</b>
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxide; PM<sub>10</sub> = particulate matter with a diameter no more than 10 microns; PM<sub>2.5</sub> = particulate matter with a diameter no more than 2.5 microns

Notes: Some numbers may not add up precisely due to rounding considerations.

Source: Table 2.2 "Overall Operation-Unmitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

**Threshold 3** Would the project expose sensitive receptors to substantial pollutant concentrations?

**Impact AQ-3 CONSTRUCTION AND OPERATION OF THE PROJECT WOULD NOT RESULT IN EMISSIONS OF TACs SUFFICIENT TO EXCEED APPLICABLE HEALTH RISK CRITERIA. IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

### Localized Significance Thresholds

#### *Construction LSTs*

Table 8 summarizes maximum daily onsite emissions associated with construction of the project. Similar to the regional emissions, the localized emissions assume that all four hours of emergency generator use occur in one day. The onsite construction emissions of NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions would not exceed SCAQMD LST screening levels during any phase of construction. Therefore, the project would not expose sensitive receptors to substantial criteria pollutant concentrations during construction activities.

**Table 8 Onsite Construction Emissions**

	Maximum Onsite Emissions (lbs/day) <sup>1</sup>			
	NO <sub>x</sub> /NO <sub>2</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction Emissions	30.0	37.2	9.0	4.7
SRA 13 Applicable LST <sup>2</sup>	236	1,644	12	6
Threshold Exceeded?	No	No	No	No

SRA = source receptor area; lbs/day = pounds per day; NO<sub>x</sub>/NO<sub>2</sub> = nitrogen oxides; CO = carbon monoxide; PM<sub>10</sub> = particulate matter 10 micrometers in diameter or less; PM<sub>2.5</sub> = fine particulate matter 2.5 micrometers in diameter or less

<sup>1</sup>Some numbers may not add up precisely due to rounding considerations. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings. The emissions also account for construction worker vehicle trips and haul truck trips traveling the project length, which is approximately 0.8 mile.

<sup>2</sup>The applicable LST for SRA 13 are the thresholds for a five-acre site at a distance of 82 feet (25 meters) for all pollutants except for NO<sub>x</sub>. The LST for a five-acre site at a distance of 164 feet (50 meters) was used for NO<sub>x</sub>.

Source: See CalEEMod worksheets in Appendix A.

#### *Operation LSTs*

Table 9 summarizes maximum daily onsite emissions associated with operation of the project. The onsite construction emissions of NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions would not exceed SCAQMD LST screening levels during operation. Therefore, the project would not expose sensitive receptors to substantial criteria pollutant concentrations during operation.

**Table 9 Onsite Operation Emissions**

	Maximum Onsite Emissions (lbs/day) <sup>1</sup>			
	NO <sub>x</sub> /NO <sub>2</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Operation Emissions	26	29	1	1
SRA 13 Applicable LST <sup>2</sup>	236	1,644	3	2
Threshold Exceeded?	No	No	No	No

SRA = source receptor area; lbs/day = pounds per day; NO<sub>x</sub>/NO<sub>2</sub> = nitrogen oxides; CO = carbon monoxide; PM<sub>10</sub> = particulate matter 10 micrometers in diameter or less; PM<sub>2.5</sub> = fine particulate matter 2.5 micrometers in diameter or less

<sup>1</sup>Emissions only account for onsite construction emissions.

<sup>2</sup>The applicable LST for SRA 13 are the thresholds for a five-acre site at a distance of 82 feet (25 meters) for all pollutants except for NO<sub>x</sub>. The LST for a five-acre site at a distance of 164 feet (50 meters) was used for NO<sub>x</sub>.

Source: Table 2.1 "Overall Operation-Unmitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

## Project Toxic Air Contaminants

### Construction

Construction-related activities would result in short-term, project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2021b).

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately 29 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 29 months) is eight percent of the total exposure period used for health risk calculation. Additionally, localized diesel particulate matter emissions are below localized thresholds as presented in Table 8. Although the localized analysis does not directly measure health risk impacts, it does provide data that can be used to evaluate the potential to cause health risk impacts. The low level of PM emissions coupled with the short-term duration of construction activity will result in a low level of diesel particulate matter concentrations in the project area.

Also as previously mentioned, the project would also be consistent with the applicable AQMP requirements and control strategies and the CARB In-Use Off-Road Diesel Vehicle Regulation which are intended to reduce emissions from construction equipment and activities. The project would operate off-road diesel-powered construction equipment to meet or exceed CARB and USEPA Tier 3 off-road emissions standards with Level 3 diesel particulate filter or be alternatively (non-diesel) fueled to reduce diesel exhaust emissions. Diesel equipment would also be retrofitted with diesel

particulate filters. Thus, construction activities would not expose sensitive receptors to substantial toxic air contaminant concentrations.

### *Operation*

Implementation of the project would involve construction of a film studio with sound stages, production offices, and amenities (e.g., catering, a gym, an onsite car wash and detailing service). While such developments are not typically associated with emissions of TACs, long-term stationary sources of TACs, such as diesel-powered emergency-use generators will be installed onsite to support the project. Pursuant to SCAQMD rules and regulations, including SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants), major stationary sources having the potential to emit TACs would be required to obtain permits from the SCAQMD. Permits may be issued provided the source is constructed and operated in accordance with applicable SCAQMD rules and regulations. Given that compliance with applicable standards and regulations would be required, TAC emissions from new permitted stationary sources would not be anticipated to result in an increased risk to nearby sensitive receptors that would exceed applicable significance thresholds.

In addition to long-term exposure to stationary emission sources, the operation of the project would increase emissions from mobile sources. However, the project is expected to have a lower home-based work vehicle miles traveled (VMT) per employee compared to the Citywide threshold. According to the Transportation Assessment prepared by Gibson Transportation Consulting, Inc., the City of Santa Clarita average is 17.9 home-based work VMT per employee. The proposed project would have a home-based work VMT per employee of 14.0, which does not exceed the Citywide average of 17.9 home-based work VMT per employee. It can then be presumed that because the project would generate new jobs, it would provide additional employment opportunities for local existing and future residents, thus decreasing VMT for similar employment opportunities. Therefore, the increase in traffic generated by the project would not result in substantial mobile emissions.

Other long-term operational emissions include toxic substances such as cleaning agents in use on site. Compliance with State and federal handling regulations would ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents is regulated by the 1990 federal Clean Air Act Amendments as well as State-adopted regulations for the chemical composition of consumer products. Given the aforementioned, project-related TAC emission impacts during operation would not expose sensitive receptors substantial pollutant concentrations.

<b>Threshold 4</b>	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
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**Impact AQ-4** THE PROJECT WOULD NOT GENERATE ODORS ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE DURING CONSTRUCTION OR OPERATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

### **Odors**

The project would generate oil and diesel fuel odors during construction from equipment use as well as odors related to asphalt paving. The odors would be limited to the construction period and would be intermittent and temporary. For construction activities are also subject to SCAQMD Rule 402 *Nuisance*. Furthermore, these odors would dissipate rapidly with distance from in-use construction equipment. Accordingly, the proposed project would not create objectionable odors

affecting a substantial number of people during construction, due to the temporary nature of construction.

With respect to operation, the SCAQMD's *CEQA Air Quality Handbook* (1993) identifies land uses associated with odor complaints to be agricultural uses, wastewater treatment plants, chemical and food processing plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project consists of sound stages, production offices, production support buildings (e.g., catering, gym, and back lot café), a car washing/detailing center, and parking. The project would not include the common sources listed above. Therefore, the project would not create objectionable odors affecting a substantial number of people during operation.

## 4.2 Cumulative Air Quality Impacts

The cumulative context for air quality is regional. The SCAB is designated a nonattainment area for the federal and State 1-hour and 8-hour ozone standards, the State PM<sub>10</sub> standards, the federal 24-hour PM<sub>2.5</sub> standard, and the federal and State annual PM<sub>2.5</sub> standard. SCAB is in attainment of all other federal and State standards. Despite the current nonattainment status and local air quality standard exceedances, air quality in the basin has generally improved since the inception of air pollutant monitoring in 1976. This improvement is mainly due to lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation of emission reduction strategies by the SCAQMD. This trend toward cleaner air has occurred in spite of continued population growth, as discussed in the 2016 AQMP for the SCAB (SCAQMD 2017).

The project would contribute PM and the ozone precursors (VOC and NO<sub>x</sub>) to the area during construction and operation. As described in Section 4.1, *Air Quality Impact Analysis*, regional emissions during construction would not exceed SCAQMD thresholds, would not contribute substantially to an existing or projected air quality violation, and would not be potentially significant. Therefore, the proposed project would not contribute a cumulatively considerable contribution of VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> from construction or operational emissions.

As described above, the project would generate construction or operational emissions of TACs but would not pose a potential health risk impact to existing sensitive receptors in proximity to the project site. Also, the developments proposed as part of the project would not be associated with odor-generation. Therefore, cumulative impacts associated with exposure of sensitive receptors to substantial pollutant concentrations or odors would be less than significant and the proposed project's contribution to such impacts would not be cumulatively considerable. In addition, the project is not located near existing or planned projects that would generate TAC or odor emissions affecting a substantial number of people. SCAQMD Rule 402 Nuisance, which prohibits the discharge of air contaminants that would cause injury, detriment, nuisance, or annoyance to the public, would minimize the potential for nuisance odors. Therefore, no cumulative TAC or odor emissions impacts would occur.

## 4.3 Greenhouse Gas Impact Analysis

<b>Threshold 1:</b>	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
<b>Threshold 2:</b>	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

**IMPACT GHG-1 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT WOULD GENERATE TEMPORARY AND LONG-TERM INCREASES IN GHG EMISSIONS THAT WOULD NOT RESULT IN A SIGNIFICANT IMPACT ON THE ENVIRONMENT RELATED TO CLIMATE CHANGE. THE PROJECT WOULD NOT CONFLICT WITH THE 2022 SCOPING PLAN, OR THE SCAG 2020-2045 RPT/SCS, OR THE SANTA CLARITA GENERAL PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

As discussed in the thresholds section, emissions for the project are quantified for informational purposes only as there is no applicable numeric threshold.

### *Construction Emissions*

The project would generate temporary GHG emissions primarily from the operation of construction equipment onsite as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials. As shown in Table 10, construction associated with the project would generate 5,884 MT CO<sub>2</sub>e. Amortized over a 30-year period per SCAQMD guidance, construction associated with the full buildout of the project would generate 196 MT CO<sub>2</sub>e per year.

**Table 10 Construction GHG Emissions**

Construction Year	Emissions MT CO <sub>2</sub> e
2023	677
2024	3,660
2025	1,457
<b>Total</b>	<b>5,884</b>
<b>Amortized Over 30 Years</b>	<b>196</b>

MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent

Source: Appendix A CalEEMod worksheets

### *Combined Annual Emissions*

Operation of the full buildout allowed by the project would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, and wastewater and solid waste generation. Annual operational emissions resulting from full buildout of the project without the incorporation of additional Renewable Portfolio Standard attainment beyond CalEEMod Defaults, incorporation of AB 341 and incorporation of Title 24 requirements for the incorporation of electric vehicle (EV) charging stations are summarized in Table 11. The GHG emissions combine the amortized construction emissions. The full buildout of the project would generate approximately 11,373 MT CO<sub>2</sub>e.

**Table 11 Unreduced Full Buildout Combined Annual Emissions**

<b>Emission Source</b>	<b>Annual Emissions (MT CO<sub>2</sub>e)</b>
<b>Construction<sup>1</sup></b>	<b>196</b>
<b>Operational</b>	<b>11,177</b>
Area	<1
Energy	1,688
Mobile	8,627
Solid Waste	774
Water	12
Generators	37
Food Trucks <sup>2</sup>	39
<b>Total</b>	<b>11,373</b>

MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent; values may not add directly due to rounding.

<sup>1</sup> Amortized construction related GHG emissions over 30 years

<sup>2</sup> Food Truck emissions account for electricity and waste emissions only. Mobile emissions are assumed to be part of the anticipated daily emissions quantifications and are included under mobile emissions.

Source: Appendix A CalEEMod worksheets

RPS standards based on SB100 set a target of attaining 100 percent carbon-free electricity by 2045. CalEEMod uses the intensity factors for carbon, methane and nitrogen dioxide from 2021. SCE will need to continue to annually increase renewable electricity through 2045 in order to meet the carbon-free electricity target. The analysis incorporates an additional reduction in electricity for the incorporation of additional renewable sources between 2021 and the operational year of 2024. AB 341 sets a target of reducing landfill waste by 75 percent by 2020. Additionally, the project will need to be consistent with Title 24 which requires incorporation of solar as well as electric vehicle charging capabilities. The project would include 3,435 parking spaces. Based on Title 24 requirements, the project would be required to include 20 percent of parking spaces that are electric ready and of that 25 percent would require electric charging stations be installed at the buildout. This would result in 687 electric ready spaces with a minimum of 172 spaces serviced by charging stations. The analysis conservatively assumes 172 spaces would be serviced by charging stations at buildout. The amount of solar that will be incorporated based on Title 24 requirements is not known at this time and therefore was not incorporated in the reductions. Therefore, the reduced full buildout emissions presented in Table 12 are conservative. The reduced full buildout of the project would generate approximately 7,252 MT CO<sub>2</sub>e.

**Table 12 Reduced Full Buildout Combined Annual Emissions**

<b>Emission Source</b>	<b>Annual Emissions (MT CO<sub>2</sub>e)</b>
<b>Construction<sup>1</sup></b>	<b>196</b>
<b>Operational</b>	<b>7,056</b>
Area	<1
Energy	1,688
Additional RPS Reduction	(183)
Mobile	8,627
EV Charging Stations	(3,357)
Solid Waste	774
AB 341	(581)
Water	12
Generators	37
Food Trucks	39
<b>Total</b>	<b>7,252</b>

MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent; parenthetical values represent negative numbers; values may not add directly due to rounding.

<sup>1</sup> Amortized construction related GHG emissions over 30 years

<sup>2</sup> Food Truck emissions account for electricity and waste emissions only. Mobile emissions are assumed to be part of the anticipated daily emissions quantifications and are included under mobile emissions.

Source: Appendix A CalEEMod worksheets

## Consistency with Applicable Plans

Several plans and policies have been adopted to reduce GHG emissions in the southern California region, including the. The project’s consistency with these plans is discussed in the following subsections. The project’s consistency with the State’s 2022 Scoping Plan, SCAG’s 2020-2045 RTP/SCS, and the City of Santa Clarita General Plan, are discussed below. Given the analysis below, the project is consistent with State and local policies for reducing GHG emissions.

### *2022 Scoping Plan*

The current principal state plans and policies is SB 32. The quantitative goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2022 Scoping Plan was created to outline goals and measures for the state to achieve the reductions and to further state reductions to meet the overarching goal of carbon neutrality by 2045. The 2022 Scoping Plan’s strategies that are applicable to the project include reducing fossil fuel use, energy demand, and VMT; maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards, providing EV parking spaces and charging equipment, and complying with the AB 341 waste diversion goal of 75 percent. In addition, the project would receive electricity from SCE, which is required to reduce GHG emissions by increasing procurement from eligible renewable energy by set target years. Therefore, the project would be not conflict with the 2022 Scoping Plan.



### Connect SoCal: 2020-2045 SCAG RTP/SCS

The SCAG *Connect SoCal RTP/SCS* is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The 2020-2045 RTP/SCS includes ten goals with corresponding implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. These strategies include similar measures to the 2022 Scoping Plan, such as encouraging use of electric vehicles. The project’s consistency with the 2020-2045 RTP/SCS is discussed in Table 13. As shown therein, the project would be consistent with the GHG emission reduction strategies contained in the *Connect SoCal 2020-2045 RTP/SCS*.

**Table 13 Project Consistency with Applicable SCAG 2020-2045 RTP/SCS Strategies**

Reduction Strategy	Project Consistency
<p><b>Focus Growth Near Destinations &amp; Mobility Options.</b></p> <ul style="list-style-type: none"> <li>▪ Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations</li> <li>▪ Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets</li> <li>▪ Plan for growth near transit investments and support implementation of first/last mile strategies.</li> <li>▪ Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses</li> <li>▪ Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods</li> <li>▪ Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)</li> <li>▪ Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)</li> </ul>	<p><b>Consistent.</b> The proposed project would be constructed on a 93.5-acre parcel at the northeast corner of Railroad Avenue and 13<sup>th</sup> Street. It is located within the central part of the city of Santa Clarita near existing residences and commercial uses. The project would repurpose the vacant site and develop a full-service film and television studio campus. This site was chosen due to its proximity to existing residences and public transit.</p> <p>Once operational, the project would provide services to the local area by generating approximately 2,500 direct jobs, and 3,500 indirect jobs would be created for a total of approximately 5,000 jobs. These jobs would be available to existing and future residents of Santa Clarita in addition to residents in other surrounding cities.</p> <p>Within half of a mile south of the project site, there several public transit options operated by four different operators. For example, there are two bus stops adjacent to the western boundary of the site along Railroad Avenue serviced by Santa Clarita Transit (SCT) and Antelope Valley Transit Authority. The former provides local bus routes within the City of Santa Clarita while the latter provides transit services in the cities of Palmdale, Lancaster, and Northern Los Angeles. These bus stops are served by routes 12 and 757 from Santa Clarita Transit and route 790 from Antelope Valley Transit Authority. These lines also have stops at the Newhall Metrolink Station, which is half a mile south of the project site or an approximately ten-minute walk to the project entrance at the intersection of Railroad Avenue and 13<sup>th</sup> Street. At the Newhall Metrolink Station (25663 Avenue Stanford), there are additional Santa Clarita Transit bus routes (796, 797, and 799). The Amtrak Thruway Bus route 1 also has a stop at the station. Lastly, the Antelope Valley commuter rail line provided by Metrolink stops at the station. This commuter rail provides stops from Lancaster to the Los Angeles Union Station. The campus would also</p>

Reduction Strategy	Project Consistency
	<p>provide a total of 170 bicycle storage spaces onsite for those traveling to the site via bicycle. Given the number of public transit options and the proximity of the campus to the Newhall Metrolink Station, these factors would encourage future employees to travel to the site via public transit.</p> <p>Additionally, the project would provide catering, specialty services (e.g., car washing and detailing service), and a gym to encourage a “park once” strategy for employees and guests of the campus to reduce daily trips generated by the project.</p> <p>Therefore, the project would focus growth near public transit and provide new employment opportunities while also reducing daily trips by providing amenities onsite.</p>
<p><b>Leverage Technology Innovations.</b></p> <ul style="list-style-type: none"> <li>▪ Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space</li> <li>▪ Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a “mobility wallet,” an app-based system for storing transit and other multi-modal payments</li> <li>▪ Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage and power generation</li> </ul>	<p><b>Consistent.</b> The project would be required to comply with the electric vehicle requirements in the CALGreen code. For example, pursuant with CALGreen Section 5.106.5.3.3, the project would provide 246 electric vehicle charging spaces onsite. Electrical golf carts would also be used for onsite travel. Therefore, the project would promote low emission technologies and improve access to services through technology.</p>
<p><b>Support Implementation of Sustainability Policies.</b></p> <ul style="list-style-type: none"> <li>▪ Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions</li> <li>▪ Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations</li> <li>▪ Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space</li> <li>▪ Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies</li> <li>▪ Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region</li> <li>▪ Continue to support long range planning efforts by local jurisdictions</li> <li>▪ Provide educational opportunities to local decision makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy</li> </ul>	<p><b>Consistent.</b> The project would also be consistent with the 2022 Scoping Plan. Therefore, the project would not hinder statewide legislation that aims to reduce GHG emissions. Also as shown in Table 14, the project would be consistent with the City of Santa Clarita’s General Plan.</p> <p>Therefore, the project would support implementation of applicable sustainability policies.</p>

Reduction Strategy	Project Consistency
<p><b>Promote a Green Region.</b></p> <ul style="list-style-type: none"> <li>▪ Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards</li> <li>▪ Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration</li> <li>▪ Integrate local food production into the regional landscape</li> <li>▪ Promote more resource efficient development focused on conservation, recycling, and reclamation</li> <li>▪ Preserve, enhance, and restore regional wildlife connectivity</li> <li>▪ Reduce consumption of resource areas, including agricultural land</li> <li>▪ Identify ways to improve access to public park space</li> </ul>	<p><b>Consistent.</b> The project site is on a vacant parcel within the boundaries of the city of Santa Clarita. The site is located in an urbanized area of the city with residences, commercial uses, and office uses in the surrounding area. Since the area in proximity is already developed, the project would not interfere with regional wildlife connectivity or convert agricultural land. Therefore, the project would not interfere with the promotion and development of a green region.</p>

Source: SCAG 2020

### City of Santa Clarita General Plan

The City’s General Plan also includes Goal CO 8, which is directed at improving energy efficiency, reducing energy and natural resource consumption, and reducing GHG emissions associated with development. Table 14 summarizes the project’s consistency with General Plan Goal CO 8. As summarized therein, the project would be consistent with the applicable measures of the City’s General Plan.

**Table 14 Project Consistency with City of Santa Clarita General Plan**

Reduction Strategy	Project Consistency
<b>General Plan</b>	
<p><b>Conservation and Open Space Goal 8.</b> Development designed to improve energy efficiency, reduce energy and natural resource consumption, and reduce emissions of greenhouse gases.</p>	<p><b>Consistent.</b> The project would be required to comply with the California Green Building Standards Code, the 2019 Building Energy Efficiency Standards, the City’s Green Building Standards Code, and the City’s Energy Conservation Code. The project would be constructed in compliance with CALGreen and the 2022 Title 24 standards and would be located within walking distance to the Newhall Metrolink Station. In addition, the project would include onsite amenities (catering, gym, and car wash services) and electrical golf carts, thereby reducing vehicle trips. The project would also plant trees throughout the project site.</p>

Source: City of Santa Clarita 2012

## 4.4 Cumulative GHG Emissions Impacts

The geographic scope for related projects considered in the cumulative impact analysis for GHG emissions is global because impacts of climate change are experienced on a global scale regardless of the location of GHG emission sources. Therefore, GHG emissions and climate change are, by definition, cumulative impacts. As discussed in Section 2.2, *Potential Effects of Climate Change*, the adverse environmental impacts of cumulative GHG emissions, including sea level rise, increased average temperatures, more drought years, and more large forest fires, are already occurring. As a result, cumulative impacts related to GHG emissions are significant. Thus, the issue of climate change involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. As discussed under Thresholds 1 and 2, project impacts related to GHG emissions would not exceed the applicable local threshold nor would the project conflict with the applicable regulations or plans. Therefore, the project would therefore not be cumulatively considerable.

## 5 Conclusions

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### 5.1 Air Quality Summary

As shown in Table 6 and Table 7, project construction and operational emissions, respectively, would not exceed applicable SCAQMD level thresholds for all criteria pollutants. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant and would be consistent with the SCAG growth projections used in the 2016 AQMP.

In addition, the project would not exceed the applicable LSTs from construction and operational activities. During construction and operation, the project would generate TAC emissions, including DPM exhaust emissions associated with use of heavy-duty diesel construction equipment and trucks. However, construction of the project is not expected to result in adverse health risk impacts and if the project includes the installation of stationary sources (e.g., emergency generator) onsite then the source would be subject to SCAQMD permitting requirements to ensure the source does not pose a potential health risk impact. Also, the additional daily vehicle trips are not expected to result in adverse long-term regional impacts since the VMT generated by the project would be below the applicable VMT per capita threshold. Therefore, no health risks resulting from TACs produced from construction and operation of the project are expected at the nearest sensitive receptors.

During construction, the project would temporarily generate diesel exhaust odors from use of heavy-duty equipment and during operation the project would generate vehicle exhaust and fugitive fuel vapors may be released. These types of odors dissipate quickly with distance and do not typically result in odor impacts. Long-term operation of the project is also not expected to a potential source of odors. The project does not include land uses typically associated with odor complaints such as sewage treatment plants, landfills, recycling facilities, and agricultural uses. For this reason, operational odor impacts would not occur.

### 5.2 Greenhouse Gas Emissions Summary

The project would result in an overall GHG emissions of 11,373 MT CO<sub>2</sub>e per year without accounting for additional reductions from utility compliance with RPS and waste reduction measures or accounting for the reduction from project compliance with Title 24 requirements. Reductions from compliance with these measures will reduce project emissions to 7,252 MT CO<sub>2</sub>e annually. The majority of these emissions would result from vehicle trips to and from the site. The project would also not conflict with the 2022 Scoping Plan, the SCAG 2020-2045 RTP/SCS, or the City of Santa Clarita General Plan.

## 6 References

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# Appendix A

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Air Quality and Greenhouse Gas Modeling Results



## Land Use Assumptions

Building Name	CalEEMod Land use	Unit Size	Unit
Sound Stages	Industrial Park	476,000 sf	
Production Support	Industrial Park	571,000 sf	
Catering and other specialty services	Office Park	33,700 sf	
	Automobile Care Center	3,800 sf	
Production Office	General Office Building	210,000 sf	
Total Building		1,294,500 sf	
Parking Structure (Covered)	Enclosed Parking with Elevator	822 spaces	
		389,163 sf	
Parking Structure (Uncovered)	Unenclosed Parking with Elevator	247 spaces	
Onsite Ground Level Parking	Parking Lot	2,366 spaces	
		821,548 sf	
Paving	Other Asphalt Surfaces	1,042,894 sf	

sf = square feet; N/A = not applicable

**TABLE 6  
PROJECT TRIP GENERATION ESTIMATES**

TRIP GENERATION RATES									
Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
Stage	[a]	per 1,000 sf	5.91	63%	37%	0.20	40%	60%	0.43
Support [b]	[a]	per 1,000 sf	4.14	65%	35%	0.61	45%	55%	0.57
Production Office	[a]	per 1,000 sf	9.34	62%	38%	0.66	45%	55%	0.63

TRIP GENERATION ESTIMATES									
Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
<b><u>Proposed Project</u></b>									
Stage	[a]	475 ksf	2,807	60	35	95	82	122	204
Support [b]	[a]	560 ksf	2,318	222	120	342	144	175	319
Production Office	[a]	200 ksf	1,868	82	50	132	57	69	126
<b><i>Gross Project Trips</i></b>			<b>6,993</b>	<b>364</b>	<b>205</b>	<b>569</b>	<b>283</b>	<b>366</b>	<b>649</b>
<b>TOTAL - NET NEW PROJECT TRIPS</b>			<b>6,993</b>	<b>364</b>	<b>205</b>	<b>569</b>	<b>283</b>	<b>366</b>	<b>649</b>

Notes

ksf: 1,000 square feet

[a] Rate based on empirical rates for studio land uses within the Los Angeles region.

[b] Includes 22,272 sf of catering space

Construction

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysW	NumDays	PhaseDescription
1	Site Preparation	Site Preparation	2023/04/03	2023/07/18	5	77	
2	Grading	Grading	2023/07/19	2023/12/04	5	99	
3	Building Construction	Building Construction	2023/12/05	2025/05/16	5	379	
4	Architectural Coating	Architectural Coating	2024/08/26	2025/05/16	5	190	
5	Paving	Paving	2025/05/19	2025/09/26	5	95	
			# of months			29	

**Grading**

Site would be balanced, no import or export

**Architectural Coating**

SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L

## Construction

Site Prep – 4/3/23 – 7/18/23

Grading/Civil – 7/19/23 - 12/4/23

Building Construction – 12/5/23 – 5/18/25

Paving Landscape - 5/19/25 – 9/26/25

\*Project applicant provided schedule above



## Criteria Pollutant Emissions (Tier 3 Engines)

Year	Construction Maximum Daily Emissions (lbs/day)									
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
<b>Summer</b>										
2023	6	39	82	0	22	0	22	6	0	6
2024	42	41	90	0	25	0	26	7	0	7
2025	42	52	104	0	25	1	26	7	0	7
<b>Maximum</b>	<b>42</b>	<b>52</b>	<b>104</b>	<b>0</b>	<b>25</b>	<b>1</b>	<b>26</b>	<b>7</b>	<b>0</b>	<b>7</b>
<b>Winter</b>										
2023	7	40	77	0	22	0	22	6	0	6
2024	42	42	85	0	25	0	26	7	0	7
2025	43	53	99	0	25	1	26	7	0	7
<b>Maximum</b>	<b>43</b>	<b>53</b>	<b>99</b>	<b>0</b>	<b>25</b>	<b>1</b>	<b>26</b>	<b>7</b>	<b>0</b>	<b>7</b>
<b>Maximum Construction Emissions</b>	<b>42.64</b>	<b>52.89</b>	<b>103.91</b>	<b>0.33</b>	<b>25.31</b>	<b>0.50</b>	<b>25.82</b>	<b>6.80</b>	<b>0.49</b>	<b>7.29</b>
SCAQMD Regional Thresholds	75	100	550	150	N/A	N/A	150	N/A	N/A	55
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

lbs/day = pounds per day; VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter with a diameter no more than 10 microns; PM<sub>2.5</sub> = particulate matter with a diameter no more than 2.5 microns; SO<sub>x</sub> = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations. The construction equipment accounts for equipment equipped with United States Environmental Protection Tier 4 rated engines. Only equipment rated higher than 50 horsepower have Tier 4 engines.

Source: Table 2.1 "Overall Construction-mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

	Construction Maximum Onsite Daily Emissions (lbs/day)									
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Maximum Onsite Summer Emissions	36.4	30.0	37.2	0.1	8.8	0.3	9.0	4.5	0.3	4.7
Maximum Onsite Winter Emissions	36.4	30.0	37.2	0.1	8.8	0.3	9.0	4.5	0.3	4.7
<b>Maximum Onsite Emissions</b>	<b>36.4</b>	<b>30.0</b>	<b>37.2</b>	<b>0.1</b>	<b>8.8</b>	<b>0.3</b>	<b>9.0</b>	<b>4.5</b>	<b>0.3</b>	<b>4.7</b>
SCAQMD LST	N/A	236	1,644	N/A	N/A	N/A	12	N/A	N/A	6
<b>Threshold Exceeded for Onsite Maximum Emissions?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

lbs/day = pounds per day; VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM<sub>10</sub> = particulate matter with a diameter no more than 10 microns; PM<sub>2.5</sub> = particulate matter with a diameter no more than 2.5 microns; SO<sub>x</sub> = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

Source: Table 2.1 "Overall Construction-mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

LST Assumptions		
SRA	Acres	Receptor distance (meters)
13	5	25

<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality>

## Blackhall Studios - Santa Clarita Project Generator Assumptions

6 Generators                      1400 Amp Diesel Studio Generators<sup>1</sup>  
169 kW  
1.341 hp/kW  
226.629 hp

4 hours emergency operation per generator per year<sup>2</sup>  
50 hours per year per generator for testing<sup>3</sup>  
54 hours per year total operations per generator  
20 minutes per month per generator for testing<sup>4</sup>

1 [https://service.multiquip.com/pdfs/EGS1400C3\\_Data\\_Sheet.pdf](https://service.multiquip.com/pdfs/EGS1400C3_Data_Sheet.pdf)

Tier 3

2 In 2021 the entire Santa Clarita area (54 circuits) had an average of 1.1 disruptions for an average of 180 minutes for the entire year of 2021. This is the trend over a 4 year period listed from 2018-2021 (see page 14 of link below). This report is a reliably report for SCE. This analysis is for all 54 circuits in the City. The studio project is only on one of these circuits. In statistical terms it appears that the Shadowbox Studio project circuit would actually have a 1 in 54 chance of a sustained outage one time per year. For purposes of this analysis we utilized the most extreme potential of one city-wide power outage per year.

3 50 hours per year is standard permitting emissions quantifications for SCE generator permits for maintenance. Used the 50 hours per year as a conservative estimate of annual emissions.

4 Applicant provided information.

## Blackhall Studios - Santa Clarita Project Food truck Assumptions

7 food trucks onsite  
6,500 W usage per truck<sup>1</sup>  
12 hours of operation per day per truck  
78,000 W usage per truck per day  
78 kW usage per truck per day  
312 days per year (assumes 6 days per week, 52 weeks per year)  
24,336 kW usage per truck per year  
170,352 Total annual electrical consumption from food trucks  
200 sqft per food truck<sup>2</sup>  
1400 sqft total for 7 trucks  
1.4 Total KSF for 7 trucks  
122 kWh per sqft per year

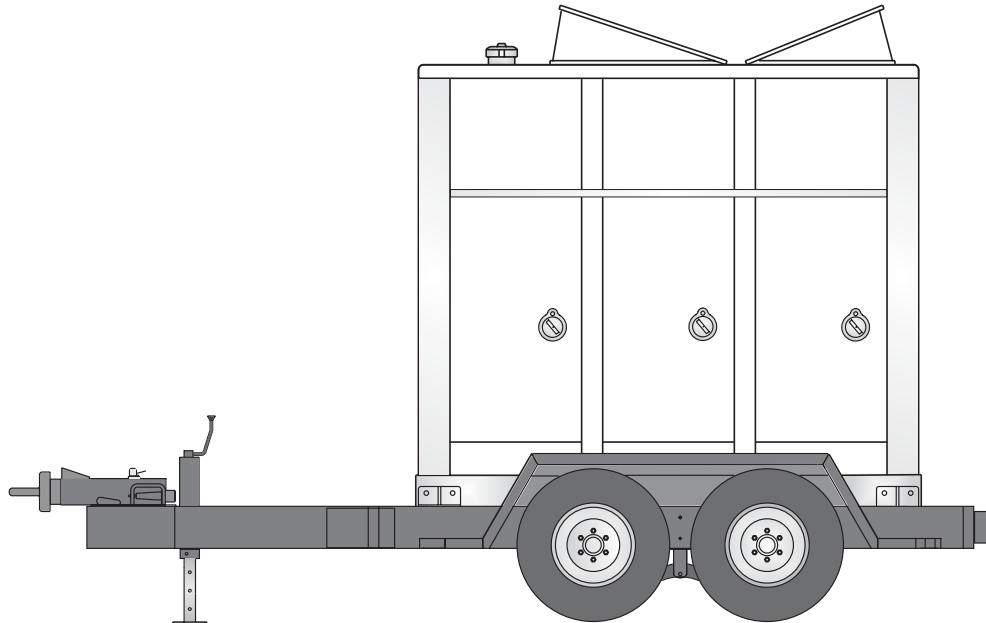
<sup>1</sup> <https://www.mr-trailers.com/electrical-power-needs/#:~:text=A%20lot%20of%20food%20trucks,hassle%20in%20the%20long%20run.>

<sup>2</sup> <https://mobile-cuisine.com/startup-basics/mobile-food-vehicles/#:~:text=Mobile%20Food%20Vehicles%3A%20Food%20Carts&text=In%20some%20cases%2C%20for%20multiple,be%20able%20to%20fit%20inside.>



# 1400 Amp Diesel Studio Generator

Model	Emissions	Amperage 120/208 Line to Neutral x 3
EGS1400C3	Tier 3 EPA Certified	1400 Amp
		60 Hertz



## Standard Features:

- Cummins Water-Cooled Diesel Engine
- Marathon Alternator
- Sound Attenuated Aluminum Housing with Rounded Corners
- Custom Radiator with Multi-Wing Fan
- Dual Automatic Voltage Regulators with Changeover Switch
- Led Instrument Panel - Voltage, Amperage, Hertz
- Analog Engine Gauges - Coolant Temperature, Oil Pressure, Hourmeter, Battery Volts
- Outlet Panel
  - 4 sets - Camlock Receptacles
  - 2 - 100 Amp BATES Connectors
  - 2 - 15 Amp Edison Receptacles (Busbar Connectors available)
- Rotary Voltage Selector Switch - Two Position
- Mechanical Fan Drive
- 120/240 Single Phase - 120 kW
- 120/208 Three Phase - 169 kW
- Main Line Circuit Breaker - 500 Amp
- Racor 900 Fuel/Water Filter
- Electric Priming Feature
- Crystal Sync Internal Electronic Engine Governor
- Internal DC Lighting with Timer
- Stainless Steel Water Lines, Exhaust Piping, Hinges and Outer Hardware
- Automatic Overhead Doors
- Inlet Rain Door with Automatic Intake Door Closure
- Critical Grade Exhaust Silencer with Rain Cap
- Murphy Engine Diagnostic Monitoring System
- B20 Bio-diesel Compliant Engine



# 1400 Amp Diesel Studio Generator

## APPLICATION DATA

### Alternator Specifications

Manufacturer/Model	Marathon Magnaplus / 431PSL6206
Type	4-pole, rotating field
Exciter Type	Brushless, voltage regulated
Number of Leads	12 Lead
Insulation	NEMA MG1-1.66
Material	Class H
Amortisseur Windings	Full
Generator RPM	1800
Power Factor	0.8
Coupling	Single bearing, flexible
Cooling Air Volume	1200 CFM
Voltage Regulation (no load to full load)	±1%
Single Step Load Acceptance per NFPA 110	100% of rating

- Compliant with NEMA MG1-22, BS5000, CSA-C22-2, IEC-34-1 standards for temperature rise.
- Sustained short-circuit current up to 300% of rated current for up to 10 seconds.
- Drip-proof, self-venting, amortisseur windings.
- Epoxy impregnated windings with tropical insulation for increased environmental protection and long life.
- Exceptional waveshape and voltage balance; 2/3 pitch winding to minimize harmonic distortion.
- Solid-state, volts-per-hertz voltage regulator with ±1% no-load to full-load voltage regulation.

### Engine Specifications

Manufacturer/Model	Cummins / QSL9-G2
Type	4-cycle, charged air cooled, turbocharged
Cylinder Arrangement	6 In-Line
Displacement	8.8 L (543 in <sup>3</sup> )
Bore	4.49 in. (114 mm)
Stroke	5.69 in. (145 mm)
Compression Ratio	16.8 : 1
Piston Speed	1707 ft/min (8.7 m/s)
Cylinder Block	Cast iron
Cylinder Head	Cast iron
Crankshaft	Nodular Iron
Brake Mean Effective Pressure (BMEP)	260 psi (1792 kPa)
Rated RPM	1800 RPM
Max. Power At Rated RPM (with fan)	320 hp (239 kW)
Governor Type	Crystal Sync Electronic
Frequency Regulation: No load to full load	Isochronous under varying loads from no load to 100% rated load
Frequency Regulation: Steady State	±0.25% of mean value for constant loads from no load to full load
Air Cleaner Type	Replaceable, Paper insert

### Amperage

Voltage	Phase	Amperage
120/240V	Single - zig zag	933A total
120/208V	Three - 4 wire	1400A total

### Fuel System

Fuel Injection Pump Make	Bosch HPCR
Recommended Fuel	ASTM-D975/No.2-D
Maximum Fuel Flow	43 gal/hr (165 L/hr)
Fuel Filters	Spin-on type
Trailer Fuel Tank Capacity	150 gal (567.7 L)
Fuel Consumption	
Diesel Fuel At % of Load	gal/hr (L/hr)
100%	16.8 (64)
75%	13.4 (51)
50%	9.3 (35)
25%	4.7 (18)

### Exhaust System

Exhaust Flow at Rated kW	1095 cfm (31.0 m <sup>3</sup> /min)
Exhaust Temperature at Rated kW	1055°F (570°C)
Maximum Allowable Backpressure	41 in H <sub>2</sub> O (10.1 kPa)
Heat Rejection To Exhaust	13350 Btu/min (235 kW)

### Lubrication System

Type	Full pressure system
System Capacity-With Filter	7 gal (26.5 L)
Oil Filter	Full flow, spin-on
Oil Cooler	Full flow, integrated design
Oil Pressure At Rated Speed	40-60 psi (276-414 kPa)

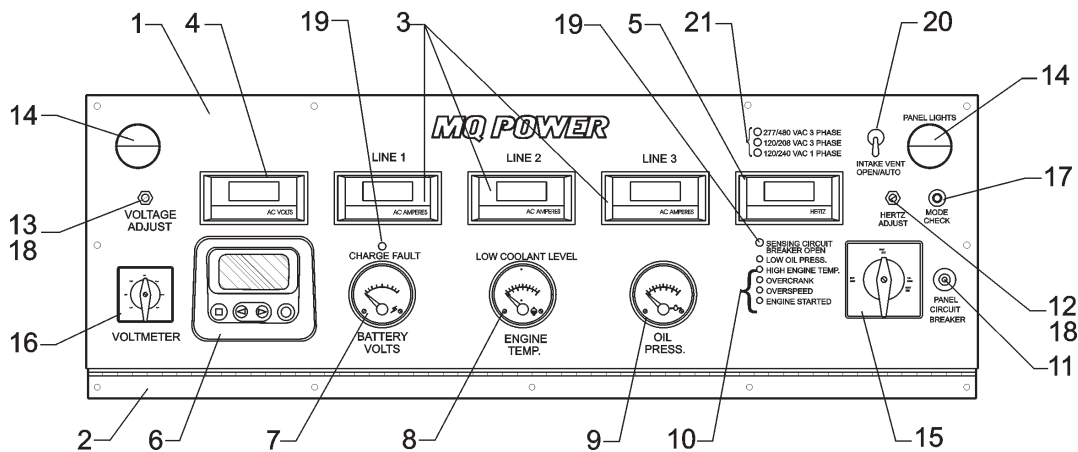


# 1400 Amp Diesel Studio Generator

Cooling System	
Exhaust Manifold	Dry type
Radiator Design	Horizontal Discharge
Ambient Temperature Rating	95°F (35°C)
Coolant Capacity (with radiator)	7.8 gal (29.5 L)
Coolant Flow	64 gal/min (242.2 L/min)
Radiator Cooling Air	9187 cfm (260 m <sup>3</sup> /min)
Heat Rejection to Charge Air Cooler	2770 Btu/min (50 kW)
Heat Rejection To Coolant	5603 Btu/min (98.5 kW)

Engine Electrical System	
Battery Charging Alternator Make	Cummins
Ground Type	Negative
Volts (DC)	24V
Ampere Rating	65A
Starter Motor Make/Model	Cummins
Starter Motor Rated Voltage	24VDC
Starter Motor Battery Capacity	2 x 750 cca

## GENERATOR CONTROLLER



- |                                     |                                  |                                   |
|-------------------------------------|----------------------------------|-----------------------------------|
| 1. AC Digital Panel                 | 8. Water Temp. Gauge             | 15. Engine Control Switch         |
| 2. Hinge Panel                      | 9. Oil Pressure Gauge            | 16. Voltage Selector Switch       |
| 3. LCD Ammeter 1000A                | 10. Engine Control Unit          | 17. Panel Light/Mode Check Switch |
| 4. LCD Voltage Meter                | 11. Panel Circuit Breaker 10 Amp | 18. Locknut Pot Shift             |
| 5. LCD Frequency Meter              | 12. Speed Adjust Pot             | 19. LED 24V DC Red                |
| 6. Murphy Engine Diagnostic Display | 13. Voltage Adjust Pot           | 20. Intake Vent Door Switch       |
| 7. Voltmeter Gauge, 24 VDC          | 14. Panel Lights                 | 21. Voltage Indicator LED         |

### CONTROLLER FEATURES

- EMI/RFI Noise Immunity and Surge Performance per IEEE C62.41
- Certified to UL508 and CSA 22.2 #14 Industrial Control Equipment Standards
- 12 or 24 Volt DC compatible
- Individual Ammeters - L1, L2, L3
- Volt Adjusting Rheostat
- Optional kW Meter available

### ECU (Engine Control Unit)

- Solid State 5-Light Engine Monitor
- Safety Shutdown and Fault Alarm for:
  - Low Oil Pressure
  - High Coolant Temperature
  - Overspeed
  - Overcrank

Backfeed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device.

*Specifications are subject to change without notice.*



# 1400 Amp Diesel Studio Generator

## Generator Set Optional Features:

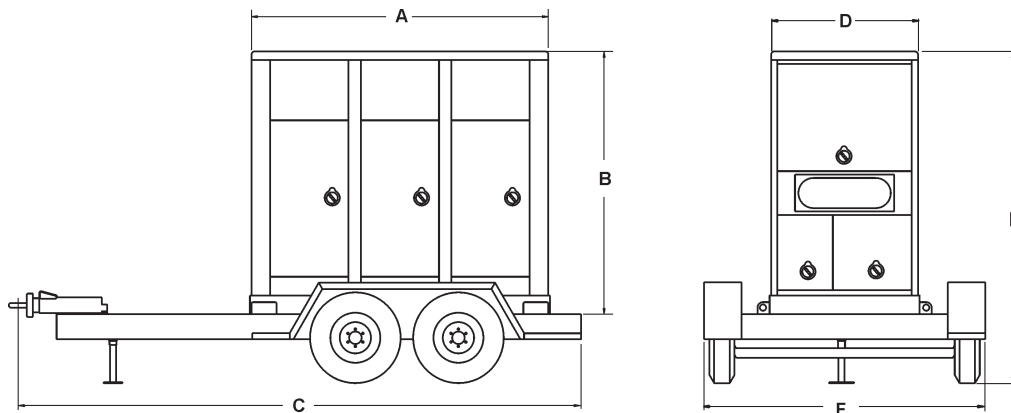
- Block Heater
- Battery Charger
- 277/480 Volt Three Phase with Three Position Selector Switch
- 5 kVA Transformer (allows Edison receptacles to be "hot" in 480 Volt)
- Exterior Lighting Package
- Upgrade to 1600 or 1800 Amp Machine (Hydraulic Fan Drive required)
- Variable Speed Hydraulic Fan Drive for Low Load / Low Temp. Noise Reduction
- Oil Level Sight Glass
- Outlet Panel Light
- Battery Disconnect Switch
- Stainless Steel Corners
- Forklift Pocket Skid Base
- Aluminized Cloth over Insulation
- Isolation Transformer
- B20 Bio-diesel Fuel Upgrade
- Dual Racor Filters
- Custom Paint Color
- Paralleling Gear (GAC)
- Oversized Alternator
- Generator Set Up with DC power
- Custom Outlet Panel
- Hubble Connectors (50 amp / 120/240V)
- Extra Bates Connectors (60 or 100 amp /120V or 100 amp / 240V)
- Alternator with PMG and Digital Voltage Regulator
- Fire Extinguisher Box Flush Mounted in Housing
- 150 Gallon Sub-Base Fuel Tank (with forklift pockets)
- Distribution Boxes (Pin and Sleeve, Camlok Load Centers, Base Camp Packages etc.)
- Entertainment Cable

## Trailer Standard Features:

- Tandem Axle Trailer with 150 Gallon Fuel Tank
- 8-Lug Chrome Wheels (5) with Chrome Center Caps and Lug Nuts
- Goodyear Wrangler Tires with Mounted Spare
- Tool Box
- Diamond Plate Decking
- Electric or Hydraulic Brakes

## Trailer Option Features:

- Alcoa Aluminum Wheels (5)
- Electric Jack Stand
- Adjustable Style 10" Hitch
- Line-X Trailer Fenders and A-frame
- Ground Rod Holder
- Wheel Chalk Basket in A-frame
- LED Lighting
- Lockable Pintle Eye
- Rear Stabilizing Jacks



<b>Weight and Dimensions</b>						
Generator Set Dimensions with Trailer						
A	B	C		D	E	F
100 in.	87 in.	with Electric Brakes	with Hydraulic Brakes	48 in.	110.5 in.	72 in.
		173 in.	180 in.			
Appx. Net Weight - Generator				6600 lbs. (2994 kg)		
Appx. Net Weight - Trailer				2580 lbs (1170 kg)		
Trailer GVWR				12000 lbs (5443 kg)		

Your MQ Power dealer is:



**MQ POWER**  
 POST OFFICE BOX 6254  
 CARSON, CA 90749  
 310-537-3700 • 800-421-1244  
 FAX: 310-632-2656  
 E-MAIL: mqpower@multiquip.com  
 WEBSITE: www.mqpower.com

**Blackhall Studios - Santa Clarita Project  
Criteria Pollutant Summary Tables**

**Operational Criteria Pollutant Emissions**

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Summer Emissions</b>						
Area	28	<1	1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	21	23	220	<1	56	15
Generators	1.2696	24.5376	27.4992	0.06348	0.9312	0.9312
food truck consumer product	0.0277		1.40E-04			
Project Summer Emissions	51	49	248	<1	57	16
<b>Winter Emissions</b>						
Area	28	<1	1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	20	24	212	<1	56	15
Generators	1.2696	24.5376	27.4992	0.06348	0.9312	0.9312
food truck consumer product	0.0277		1.40E-04			
Project Winter Emissions	50	50	240	<1	57	16
<b>Project Emissions</b>	<b>51</b>	<b>50</b>	<b>248</b>	<b>&lt;1</b>	<b>57</b>	<b>16</b>
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxide; PM<sub>10</sub> = particulate matter with a diameter no more than 10 microns; PM<sub>2.5</sub> = particulate matter with a diameter no more than 2.5 microns

Notes: Some numbers may not add up precisely due to rounding considerations.

Source: Table 2.2 "Overall Operation-Unmitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.



## Onsite Operation Emissions

	Maximum Onsite Emissions (lbs/day) <sup>1</sup>			
	NO <sub>x</sub> /NO <sub>2</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Operation Emissions	1	1.5	<0.1	<0.1
Generators	24.5376	27.4992	0.9312	0.9312
Food Trucks	0	0.00014	0	0
Total Operational Emissions	26	29	0.93	0.93
SRA 13 Applicable LST <sup>2</sup>	236	1,644	3	2
Threshold Exceeded?	No	No	No	No

SRA = source receptor area; lbs/day = pounds per day; NO<sub>x</sub>/NO<sub>2</sub> = nitrogen oxides; CO = carbon monoxide; PM<sub>10</sub> = particulate matter 10 micrometers in diameter or less; PM<sub>2.5</sub> = fine particulate matter 2.5 micrometers  
<sup>1</sup>Emissions only account for onsite construction emissions.

<sup>2</sup>The applicable LST for SRA 13 are the thresholds for a five-acre site at a distance of 82 feet (25 meters) for all pollutants except for NO<sub>x</sub>. The LST for a five-acre site at a distance of 164 feet (50 meters) was used for NO<sub>x</sub>.

Source: Table 2.1 "Overall Operation-Unmitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

## Blackhall Studios - Santa Clarita Project GHG Summary Tables

### Full Buildout Combined Annual Emissions - Without RPS and EV Charging Reductions - Updated)

Emission Source	Annual Emissions (MT CO <sub>2</sub> e)
<b>Construction<sup>1</sup></b>	<b>196</b>
<b>Operational</b>	<b>11,177</b>
Area	0.1526
Energy	1,688
Mobile	8,627
Solid Waste	774
Water	12
Generators	37
Food Trucks <sup>2</sup>	39
<b>Total</b>	<b>11,373</b>

MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent

<sup>1</sup> Amortized construction related GHG emissions over 30 years

<sup>2</sup> Food Truck emissions account for electricity and waste emissions only. Mobile emissions are assumed to be part of the anticipated daily emissions quantifications and are included under mobile emissions.

Source: Appendix A CalEEMod worksheets

### Full Buildout Combined Annual Emissions - With RPS and EV Charging Reductions

Emission Source	Annual Emissions (MT CO <sub>2</sub> e)
<b>Construction<sup>1</sup></b>	<b>196</b>
<b>Operational</b>	<b>7,056</b>
Area	0.1526
Energy	1,688
Anticipated RPS Reduction	(183)
Mobile	8,627
EV Charging Station Use	(3,357)
Solid Waste	774
AB 341	(581)
Water	12
Generators	37
Food Trucks <sup>2</sup>	39
<b>Total</b>	<b>7,252</b>

MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent

<sup>1</sup> Amortized construction related GHG emissions over 30 years

<sup>2</sup> Food Truck emissions account for electricity and waste emissions only. Mobile emissions are assumed to be part of the anticipated daily emissions quantifications and are included under mobile emissions.

Source: Appendix A CalEEMod worksheets

## Blackhall Studios - Santa Clarita Project Generator Emissions Summary

### Max Generator Emissions - 4 hours

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category								lb/day				
Generator	1.2696	24.5376	27.4992	0.06348	0.9312	0.9312	0	6010.7256	6010.7256	0.1476	0	6014.4276
<b>Total</b>	<b>1.2696</b>	<b>24.5376</b>	<b>27.4992</b>	<b>0.06348</b>	<b>0.9312</b>	<b>0.9312</b>	<b>0</b>	<b>6010.7256</b>	<b>6010.7256</b>	<b>0.1476</b>	<b>0</b>	<b>6014.4276</b>

### Max Generator Emissions - Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category								lb/day				
Generator	0.1058	2.0448	2.2916	0.00529	0.0776	0.0776	0	500.8938	500.8938	0.0123	0	501.2023
<b>Total</b>	<b>0.1058</b>	<b>2.0448</b>	<b>2.2916</b>	<b>0.00529</b>	<b>0.0776</b>	<b>0.0776</b>	<b>0</b>	<b>500.8938</b>	<b>500.8938</b>	<b>0.0123</b>	<b>0</b>	<b>501.2023</b>

### Summer Generator Emissions - Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category								lb/day				
Generator	0.1058	2.0448	2.2916	5.29E-03	0.0776	0.0776	0	500.8938	500.8938	0.0123		501.2023
<b>Total</b>	<b>0.1058</b>	<b>2.0448</b>	<b>2.2916</b>	<b>5.29E-03</b>	<b>0.0776</b>	<b>0.0776</b>	<b>0</b>	<b>500.8938</b>	<b>500.8938</b>	<b>0.0123</b>		<b>501.2023</b>

### Winter Generator Emissions - Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category								lb/day				
Generator	0.1058	2.0448	2.2916	5.29E-03	0.0776	0.0776	0	500.8938	500.8938	0.0123		501.2023
<b>Total</b>	<b>0.1058</b>	<b>2.0448</b>	<b>2.2916</b>	<b>5.29E-03</b>	<b>0.0776</b>	<b>0.0776</b>	<b>0</b>	<b>500.8938</b>	<b>500.8938</b>	<b>0.0123</b>		<b>501.2023</b>

### Annual GHG Emissions

501 lbs/20 minutes  
1,504 lbs/hr  
54 hours per year

81,195 lbs/year  
2,205 lbs/MT  
**36.83 MT/yr**

## Blackhall Studios - Santa Clarita Project Food Truck Emissions Summary

**Annual Emissions**

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/year						MT/yr					
Area	5.06E-03	0	0	0	0	0	0	0	0	0	0	0
Energy	0	0	0	0	0	0	0	30.2906	30.2906	2.56E-03	3.10E-04	30.4469
Mobile	0	0	0	0	0	0	0	0	0	0	0	0
Waste					0	0	3.2742	0	3.2742	0.1935	0	8.1118
Water					0	0	0	0	0	0	0	0
<b>Total</b>	<b>5.06E-03</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3.2742</b>	<b>30.2906</b>	<b>33.5649</b>	<b>0.1961</b>	<b>3.10E-04</b>	<b>38.5587</b>

**Max Daily Emissions**

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Category	lb/day					
Area	0.0277	0	0.00014	0	0	0
Energy	0	0	0	0	0	0
Mobile	0	0	0	0	0	0
<b>Total</b>	<b>0.0277</b>	<b>0</b>	<b>0.00014</b>	<b>0</b>	<b>0</b>	<b>0</b>

Notes: Area source = consumer products

**Summer**

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Category	lb/day					
Area	0.0277	0	1.40E-04	0	0	0
Energy	0	0	0	0	0	0
Mobile	0	0	0	0	0	0
<b>Total</b>	<b>0.0277</b>	<b>0</b>	<b>1.40E-04</b>	<b>0</b>	<b>0</b>	<b>0</b>

Notes: Area source = consumer products

**Winter**

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Category	lb/day					
Area	0.0277	0	1.40E-04	0	0	0
Energy	0	0	0	0	0	0
Mobile	0	0	0	0	0	0
<b>Total</b>	<b>0.0277</b>	<b>0</b>	<b>1.40E-04</b>	<b>0</b>	<b>0</b>	<b>0</b>

Notes: Area source = consumer products

**Blackhall Studios - Santa Clarita Project  
GHG Emissions Reductions from Charging Stations**

***Estimated GHG Emissions Reductions to replace gasoline vehicles with Electric Vehicles***

		<u>Conversion Factors:</u>
Project Electricity Emission Factor <sup>1</sup>	0.14	2204.62 lb/MT
Electric Vehicle Fuel Economy <sup>2</sup>	0.25	1.00E-06 MT/gram
Gasoline CO <sub>2</sub> e Emissions while Running <sup>3</sup>	249	0.001 MWh to KWh
Annual VMT Reduction per charging Station <sup>4</sup>	91,250	
Number of parking spaces	3,435	
% Charging capability	20%	
Number of spaces requiring charging infrastructure	687	
% requiring charging stations	25%	
Number of Chargers <sup>5</sup>	172	
Annual VMT Reduction All Stations (based on Charge)	15,672,188	

***Estimated Benefit from Installing Electric Vehicle Charging Stations.***

GHG Emissions of Gasoline vehicles	3,902	MTCO <sub>2</sub> e/yr
GHG Emissions of Electric Vehicles	545	MTCO <sub>2</sub> e/yr
Net Reduction in Emissions	3,357	MTCO <sub>2</sub> e/yr
Emissions/station	19.55	MTCO <sub>2</sub> e/yr

**Blackhall Studios - Santa Clarita Project**  
**GHG Emissions Reductions from Charging Stations**

Notes:

<sup>1</sup> CO<sub>2</sub>e intensity factor of lb/kWh is consistent with previous project CalEEMod runs. 306.38

<sup>2</sup> Obtained from National Renewable Energy Laboratory (NREL), 2018. California Plug-In Electric Vehicle Infrastructure Projections: 2017-2025 (Table C.1). Available at: <https://www.nrel.gov/docs/fy18osti/70893.pdf>.

<sup>3</sup> Obtained emission factor from CalEEMod Annual CO<sub>2</sub> gr/mile for LDA 248.96

<sup>4</sup> Annual VMT reduction estimated based on an estimate of ten hours of charge time for a Level 2 charging station that charges at a rate of 25 driving range per hour.

<sup>5</sup> Number of charging stations based on Title 24 2022 Requirements

**Blackhall Studios - Santa Clarita Project  
CO<sub>2</sub>e Intensity by Year**

	CO <sub>2</sub> e	Year	RPS %	% per year	Reduction %/yr
Base	<b>686</b>				
Southern California Edison <sup>1</sup>	390.98	2021	43%	4%	57%
	362.78	2022	47%		53%
	334.58	2023	51%		49%
	306.38	2024	55%		45%
	278.18	2025	59%		41%
	249.98	2026	64%		36%
	221.78	2027	68%		32%
	193.58	2028	72%		28%
	165.39	2029	76%		24%
SCE <sup>2</sup>	137.19	2030	80%	1%	20%
	128.04	2031	81%		19%
	118.89	2032	83%		17%
	109.75	2033	84%		16%
	100.60	2034	85%		15%
	91.46	2035	87%		13%
	82.31	2036	88%		12%
	73.17	2037	89%		11%
	64.02	2038	91%		9%
	54.87	2039	92%		8%
	45.73	2040	93%		7%
	36.58	2041	95%		5%
	27.44	2042	96%		4%
	18.29	2043	97%		3%
	9.15	2044	99%		1%
SCE <sup>2</sup>	0.00	2045	100%		0%

7%

Source:

1 CalEEMod

2 SCE: 2021 Sustainability Report:

<https://www.edison.com/content/dam/eix/documents/sustainability/eix-2021-sustainability-report-goals-summary.pdf>

**Blackhall Studios - Santa Clarita Project**  
**Additional RPS Reductions**

1,481.7328 MTCO<sub>2</sub>e annually for Electricity

4% %RPS Reduction per year (CO<sub>2</sub>e intensity)

3 Number of years (2021 (base) to 2024)

12.33% Total % Reduction to meet the 2030 RPS Requirement

182.75 MTCO<sub>2</sub>e annual Reduction for Electricity taking account RPS in 2024



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Blackhall Studios AQ with Tier 3 engines  
South Coast AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	210.00	1000sqft	0.00	210,000.00	0
Office Park	33.70	1000sqft	0.00	33,700.00	0
Industrial Park	571.00	1000sqft	0.00	571,000.00	0
Industrial Park	476.00	1000sqft	93.50	476,000.00	0
Enclosed Parking with Elevator	822.00	Space	0.00	389,163.00	0
Other Asphalt Surfaces	1,042.89	1000sqft	0.00	1,042,894.00	0
Parking Lot	2,366.00	Space	0.00	821,548.00	0
Unenclosed Parking with Elevator	247.00	Space	0.00	98,800.00	0
Automobile Care Center	3.80	1000sqft	0.00	3,800.00	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>	9			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics - Project is in Santa Clarita and the utility provider is Southern California Edison

Land Use - Project Specific land uses, which are based on the Client provided project description and January 2020 plan site submittal. See assumption worksheet

Construction Phase - Applicant specific construction schedule. There is no demolition phase because the site is vacant. The architectural coating phase is assumed to occur concurrently with Building Construction

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default CalEEMod equipment for all phases

Trips and VMT - Maximum onsite emissions and due to size assuming that some of the construction truck trips are onsite and traveling the length of the project site (approx. 0.8 miles) so worker trip length increased to 15.5 to accommodate the additional site crossing.

Grading - There would be no import or export onsite. Balanced site.

Architectural Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L

Vehicle Trips - Since Both stage (trip rate 5.91) and Production Support (trip rate 4.14) are the same land use, trip rate used in the analysis is an adjusted weighted average to have daily trip generation more accurately reflect what is in the Traffic Study.

Area Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L

Energy Use - Adjusted the electricity and natural gas amount using similar annual energy consumption from another film studio

Water And Wastewater - City of Santa Clarita wastewater treated at the Saugus or Valencia Water Reclamation Plan. 100% aerobic treatments <https://www.lacsd.org/services/wastewater-sewage/santa-clarita-valley-water-reclamation-plants>. Annual amount approx. 4,129,278

Solid Waste - Defaults

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, watering and vehicle speed from Table 1 BACT applicable to all construction activity. Based on applicant information, the construction fleet >50 HP would be equipped with Tier 4 engines with level 3 DPF filters

Area Mitigation - Low VOC paint used based on SCAQMD requirements.

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	60.00	77.00
tblConstructionPhase	NumDays	155.00	99.00
tblConstructionPhase	NumDays	1,550.00	379.00
tblConstructionPhase	NumDays	110.00	190.00
tblConstructionPhase	NumDays	110.00	95.00
tblConstructionPhase	PhaseEndDate	6/23/2023	7/18/2023
tblConstructionPhase	PhaseEndDate	1/26/2024	12/4/2023
tblConstructionPhase	PhaseEndDate	1/4/2030	5/16/2025
tblConstructionPhase	PhaseEndDate	11/8/2030	5/16/2025
tblConstructionPhase	PhaseEndDate	6/7/2030	9/26/2025
tblConstructionPhase	PhaseStartDate	6/24/2023	7/19/2023
tblConstructionPhase	PhaseStartDate	1/27/2024	12/5/2023
tblConstructionPhase	PhaseStartDate	6/8/2030	8/26/2024
tblConstructionPhase	PhaseStartDate	1/5/2030	5/5/2025
tblEnergyUse	LightingElect	3.10	1.37
tblEnergyUse	LightingElect	1.75	0.77
tblEnergyUse	LightingElect	3.77	1.67
tblEnergyUse	LightingElect	3.77	1.67
tblEnergyUse	LightingElect	3.74	1.65
tblEnergyUse	LightingElect	0.35	0.15
tblEnergyUse	LightingElect	1.75	0.77
tblEnergyUse	NT24E	5.75	2.54
tblEnergyUse	NT24E	0.19	0.08
tblEnergyUse	NT24E	4.62	2.04
tblEnergyUse	NT24E	4.62	2.04
tblEnergyUse	NT24E	4.79	2.12
tblEnergyUse	NT24E	0.19	0.08

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblEnergyUse	NT24NG	4.45	1.28
tblEnergyUse	NT24NG	0.39	0.11
tblEnergyUse	NT24NG	0.39	0.11
tblEnergyUse	NT24NG	0.19	0.05
tblEnergyUse	T24E	2.01	0.89
tblEnergyUse	T24E	3.50	1.55
tblEnergyUse	T24E	4.11	1.82
tblEnergyUse	T24E	4.11	1.82
tblEnergyUse	T24E	5.01	2.21
tblEnergyUse	T24NG	13.51	3.90
tblEnergyUse	T24NG	9.92	2.86
tblEnergyUse	T24NG	9.92	2.86
tblEnergyUse	T24NG	9.50	2.74
tblLandUse	LandUseSquareFeet	328,800.00	389,163.00
tblLandUse	LandUseSquareFeet	1,042,890.00	1,042,894.00
tblLandUse	LandUseSquareFeet	946,400.00	821,548.00
tblLandUse	LotAcreage	4.82	0.00
tblLandUse	LotAcreage	0.77	0.00
tblLandUse	LotAcreage	13.11	0.00
tblLandUse	LotAcreage	10.93	93.50
tblLandUse	LotAcreage	7.40	0.00
tblLandUse	LotAcreage	23.94	0.00
tblLandUse	LotAcreage	21.29	0.00
tblLandUse	LotAcreage	2.22	0.00
tblLandUse	LotAcreage	0.09	0.00
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblWater	IndoorWaterUseRate	357,508.21	0.00
tblWater	IndoorWaterUseRate	37,324,087.08	4,129,278.00
tblWater	IndoorWaterUseRate	242,118,750.00	0.00
tblWater	IndoorWaterUseRate	5,989,627.31	0.00
tblWater	OutdoorWaterUseRate	219,117.93	0.00
tblWater	OutdoorWaterUseRate	22,876,053.37	0.00
tblWater	OutdoorWaterUseRate	3,671,061.90	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

**2.0 Emissions Summary**

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Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
2023	7.4676	40.8553	75.2210	0.2824	21.5898	1.4258	22.5162	10.1587	1.3118	11.3245	0.0000	29,281.19 36	29,281.19 36	1.9492	2.0777	29,934.74 25
2024	43.2054	41.5007	82.7978	0.3078	25.1372	0.9161	26.0533	6.7533	0.8651	7.6184	0.0000	32,001.03 53	32,001.03 53	1.4215	2.0993	32,662.16 18
2025	43.6826	48.5578	93.8881	0.3242	25.3139	1.2355	26.5494	6.8002	1.1564	7.9566	0.0000	33,710.94 74	33,710.94 74	2.0961	2.0463	34,373.16 10
<b>Maximum</b>	<b>43.6826</b>	<b>48.5578</b>	<b>93.8881</b>	<b>0.3242</b>	<b>25.3139</b>	<b>1.4258</b>	<b>26.5494</b>	<b>10.1587</b>	<b>1.3118</b>	<b>11.3245</b>	<b>0.0000</b>	<b>33,710.94 74</b>	<b>33,710.94 74</b>	<b>2.0961</b>	<b>2.0993</b>	<b>34,373.16 10</b>

**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					
2023	6.7173	40.4267	77.0319	0.2824	21.5898	0.4020	21.9918	5.8125	0.3886	6.2011	0.0000	29,281.19 36	29,281.19 36	1.9492	2.0777	29,934.74 25
2024	42.4164	42.1116	84.6939	0.3078	25.1372	0.4238	25.5610	6.7533	0.4092	7.1625	0.0000	32,001.03 53	32,001.03 53	1.4215	2.0993	32,662.16 18
2025	42.6373	52.8910	98.5730	0.3242	25.3139	0.5047	25.8186	6.8002	0.4903	7.2905	0.0000	33,710.94 74	33,710.94 74	2.0961	2.0463	34,373.16 10
<b>Maximum</b>	<b>42.6373</b>	<b>52.8910</b>	<b>98.5730</b>	<b>0.3242</b>	<b>25.3139</b>	<b>0.5047</b>	<b>25.8186</b>	<b>6.8002</b>	<b>0.4903</b>	<b>7.2905</b>	<b>0.0000</b>	<b>33,710.94 74</b>	<b>33,710.94 74</b>	<b>2.0961</b>	<b>2.0993</b>	<b>34,373.16 10</b>



## Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	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	2.74	-3.45	-3.33	0.00	0.00	62.81	2.33	18.33	61.35	23.22	0.00	0.00	0.00	0.00	0.00	0.00

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
Energy	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353
Mobile	20.4208	24.4239	211.6423	0.4875	55.5432	0.3587	55.9019	14.8015	0.3338	15.1352		50,968.9135	50,968.9135	3.1651	2.1700	51,694.6980
<b>Total</b>	<b>48.8760</b>	<b>25.4625</b>	<b>213.0981</b>	<b>0.4938</b>	<b>55.5432</b>	<b>0.4394</b>	<b>55.9825</b>	<b>14.8015</b>	<b>0.4144</b>	<b>15.2158</b>		<b>52,210.1436</b>	<b>52,210.1436</b>	<b>3.1922</b>	<b>2.1927</b>	<b>52,943.3788</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	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
Energy	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353
Mobile	20.4208	24.4239	211.6423	0.4875	55.5432	0.3587	55.9019	14.8015	0.3338	15.1352		50,968.9135	50,968.9135	3.1651	2.1700	51,694.6980
<b>Total</b>	<b>48.8760</b>	<b>25.4625</b>	<b>213.0981</b>	<b>0.4938</b>	<b>55.5432</b>	<b>0.4394</b>	<b>55.9825</b>	<b>14.8015</b>	<b>0.4144</b>	<b>15.2158</b>		<b>52,210.1436</b>	<b>52,210.1436</b>	<b>3.1922</b>	<b>2.1927</b>	<b>52,943.3788</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	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	4/3/2023	7/18/2023	5	77	
2	Grading	Grading	7/19/2023	12/4/2023	5	99	
3	Building Construction	Building Construction	12/5/2023	5/16/2025	5	379	
4	Paving	Paving	5/5/2025	9/26/2025	5	95	
5	Architectural Coating	Architectural Coating	8/26/2024	5/16/2025	5	190	

**Acres of Grading (Site Preparation Phase): 115.5**

**Acres of Grading (Grading Phase): 297**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,941,750; Non-Residential Outdoor: 647,250; Striped Parking Area: 141,144 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**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	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,507.00	598.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	301.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>		<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0629	0.0440	0.5991	1.7500e-003	0.2121	1.1900e-003	0.2133	0.0563	1.1000e-003	0.0574		178.9506	178.9506	4.4900e-003	4.4900e-003	180.4014
<b>Total</b>	<b>0.0629</b>	<b>0.0440</b>	<b>0.5991</b>	<b>1.7500e-003</b>	<b>0.2121</b>	<b>1.1900e-003</b>	<b>0.2133</b>	<b>0.0563</b>	<b>1.1000e-003</b>	<b>0.0574</b>		<b>178.9506</b>	<b>178.9506</b>	<b>4.4900e-003</b>	<b>4.4900e-003</b>	<b>180.4014</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2023**

**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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0381		0.1419	0.1419		0.1419	0.1419	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>0.9312</b>	<b>19.0656</b>	<b>22.9600</b>	<b>0.0381</b>	<b>8.8457</b>	<b>0.1419</b>	<b>8.9876</b>	<b>4.5461</b>	<b>0.1419</b>	<b>4.6880</b>	<b>0.0000</b>	<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0629	0.0440	0.5991	1.7500e-003	0.2121	1.1900e-003	0.2133	0.0563	1.1000e-003	0.0574		178.9506	178.9506	4.4900e-003	4.4900e-003	180.4014
<b>Total</b>	<b>0.0629</b>	<b>0.0440</b>	<b>0.5991</b>	<b>1.7500e-003</b>	<b>0.2121</b>	<b>1.1900e-003</b>	<b>0.2133</b>	<b>0.0563</b>	<b>1.1000e-003</b>	<b>0.0574</b>		<b>178.9506</b>	<b>178.9506</b>	<b>4.4900e-003</b>	<b>4.4900e-003</b>	<b>180.4014</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>3.3217</b>	<b>34.5156</b>	<b>28.0512</b>	<b>0.0621</b>	<b>9.2036</b>	<b>1.4245</b>	<b>10.6281</b>	<b>3.6538</b>	<b>1.3105</b>	<b>4.9643</b>		<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0698	0.0489	0.6656	1.9400e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2200e-003	0.0637		198.8340	198.8340	4.9900e-003	4.9900e-003	200.4460
<b>Total</b>	<b>0.0698</b>	<b>0.0489</b>	<b>0.6656</b>	<b>1.9400e-003</b>	<b>0.2357</b>	<b>1.3200e-003</b>	<b>0.2370</b>	<b>0.0625</b>	<b>1.2200e-003</b>	<b>0.0637</b>		<b>198.8340</b>	<b>198.8340</b>	<b>4.9900e-003</b>	<b>4.9900e-003</b>	<b>200.4460</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2023**

**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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	1.5231	29.9782	36.7226	0.0621		0.1949	0.1949		0.1949	0.1949	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>1.5231</b>	<b>29.9782</b>	<b>36.7226</b>	<b>0.0621</b>	<b>4.1416</b>	<b>0.1949</b>	<b>4.3365</b>	<b>1.6442</b>	<b>0.1949</b>	<b>1.8391</b>	<b>0.0000</b>	<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0698	0.0489	0.6656	1.9400e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2200e-003	0.0637		198.8340	198.8340	4.9900e-003	4.9900e-003	200.4460
<b>Total</b>	<b>0.0698</b>	<b>0.0489</b>	<b>0.6656</b>	<b>1.9400e-003</b>	<b>0.2357</b>	<b>1.3200e-003</b>	<b>0.2370</b>	<b>0.0625</b>	<b>1.2200e-003</b>	<b>0.0637</b>		<b>198.8340</b>	<b>198.8340</b>	<b>4.9900e-003</b>	<b>4.9900e-003</b>	<b>200.4460</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6329	22.7840	8.8218	0.1090	3.8291	0.1271	3.9562	1.1025	0.1216	1.2240		11,743.8439	11,743.8439	0.3922	1.7016	12,260.7318
Worker	5.2619	3.6865	50.1552	0.1464	17.7606	0.0996	17.8603	4.7101	0.0917	4.8018		14,982.1398	14,982.1398	0.3763	0.3760	15,103.6047
<b>Total</b>	<b>5.8948</b>	<b>26.4704</b>	<b>58.9770</b>	<b>0.2554</b>	<b>21.5898</b>	<b>0.2267</b>	<b>21.8165</b>	<b>5.8125</b>	<b>0.2133</b>	<b>6.0258</b>		<b>26,725.9837</b>	<b>26,725.9837</b>	<b>0.7684</b>	<b>2.0777</b>	<b>27,364.3365</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2023**

**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	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>0.8225</b>	<b>13.9563</b>	<b>18.0549</b>	<b>0.0269</b>		<b>0.1753</b>	<b>0.1753</b>		<b>0.1753</b>	<b>0.1753</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6329	22.7840	8.8218	0.1090	3.8291	0.1271	3.9562	1.1025	0.1216	1.2240		11,743.8439	11,743.8439	0.3922	1.7016	12,260.7318
Worker	5.2619	3.6865	50.1552	0.1464	17.7606	0.0996	17.8603	4.7101	0.0917	4.8018		14,982.1398	14,982.1398	0.3763	0.3760	15,103.6047
<b>Total</b>	<b>5.8948</b>	<b>26.4704</b>	<b>58.9770</b>	<b>0.2554</b>	<b>21.5898</b>	<b>0.2267</b>	<b>21.8165</b>	<b>5.8125</b>	<b>0.2133</b>	<b>6.0258</b>		<b>26,725.9837</b>	<b>26,725.9837</b>	<b>0.7684</b>	<b>2.0777</b>	<b>27,364.3365</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6166	22.8880	8.6775	0.1074	3.8291	0.1273	3.9565	1.1024	0.1218	1.2243		11,575.2416	11,575.2416	0.3922	1.6796	12,085.5550
Worker	4.9297	3.2925	46.7965	0.1421	17.7606	0.0955	17.8561	4.7101	0.0879	4.7980		14,660.4483	14,660.4483	0.3411	0.3499	14,773.2301
<b>Total</b>	<b>5.5463</b>	<b>26.1805</b>	<b>55.4740</b>	<b>0.2495</b>	<b>21.5897</b>	<b>0.2228</b>	<b>21.8126</b>	<b>5.8125</b>	<b>0.2097</b>	<b>6.0222</b>		<b>26,235.6900</b>	<b>26,235.6900</b>	<b>0.7332</b>	<b>2.0294</b>	<b>26,858.7851</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**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	0.8039	13.9165	18.0406	0.0270		0.1677	0.1677		0.1677	0.1677	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>0.8039</b>	<b>13.9165</b>	<b>18.0406</b>	<b>0.0270</b>		<b>0.1677</b>	<b>0.1677</b>		<b>0.1677</b>	<b>0.1677</b>	<b>0.0000</b>	<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6166	22.8880	8.6775	0.1074	3.8291	0.1273	3.9565	1.1024	0.1218	1.2243		11,575.2416	11,575.2416	0.3922	1.6796	12,085.5550
Worker	4.9297	3.2925	46.7965	0.1421	17.7606	0.0955	17.8561	4.7101	0.0879	4.7980		14,660.4483	14,660.4483	0.3411	0.3499	14,773.2301
<b>Total</b>	<b>5.5463</b>	<b>26.1805</b>	<b>55.4740</b>	<b>0.2495</b>	<b>21.5897</b>	<b>0.2228</b>	<b>21.8126</b>	<b>5.8125</b>	<b>0.2097</b>	<b>6.0222</b>		<b>26,235.6900</b>	<b>26,235.6900</b>	<b>0.7332</b>	<b>2.0294</b>	<b>26,858.7851</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
<b>Total</b>	<b>1.3674</b>	<b>12.4697</b>	<b>16.0847</b>	<b>0.0270</b>		<b>0.5276</b>	<b>0.5276</b>		<b>0.4963</b>	<b>0.4963</b>		<b>2,556.474 4</b>	<b>2,556.474 4</b>	<b>0.6010</b>		<b>2,571.498 1</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6020	22.7809	8.5476	0.1054	3.8291	0.1277	3.9568	1.1024	0.1222	1.2246		11,364.57 80	11,364.57 80	0.3933	1.6508	11,866.35 39
Worker	4.6335	2.9595	43.7045	0.1373	17.7606	0.0911	17.8517	4.7101	0.0838	4.7939		14,302.61 37	14,302.61 37	0.3082	0.3270	14,407.75 45
<b>Total</b>	<b>5.2354</b>	<b>25.7404</b>	<b>52.2521</b>	<b>0.2426</b>	<b>21.5897</b>	<b>0.2188</b>	<b>21.8085</b>	<b>5.8125</b>	<b>0.2060</b>	<b>6.0185</b>		<b>25,667.19 17</b>	<b>25,667.19 17</b>	<b>0.7015</b>	<b>1.9778</b>	<b>26,274.10 83</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**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	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
<b>Total</b>	<b>0.7878</b>	<b>13.8778</b>	<b>18.0286</b>	<b>0.0270</b>		<b>0.1611</b>	<b>0.1611</b>		<b>0.1611</b>	<b>0.1611</b>	<b>0.0000</b>	<b>2,556.474 4</b>	<b>2,556.474 4</b>	<b>0.6010</b>		<b>2,571.498 1</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6020	22.7809	8.5476	0.1054	3.8291	0.1277	3.9568	1.1024	0.1222	1.2246		11,364.57 80	11,364.57 80	0.3933	1.6508	11,866.35 39
Worker	4.6335	2.9595	43.7045	0.1373	17.7606	0.0911	17.8517	4.7101	0.0838	4.7939		14,302.61 37	14,302.61 37	0.3082	0.3270	14,407.75 45
<b>Total</b>	<b>5.2354</b>	<b>25.7404</b>	<b>52.2521</b>	<b>0.2426</b>	<b>21.5897</b>	<b>0.2188</b>	<b>21.8085</b>	<b>5.8125</b>	<b>0.2060</b>	<b>6.0185</b>		<b>25,667.19 17</b>	<b>25,667.19 17</b>	<b>0.7015</b>	<b>1.9778</b>	<b>26,274.10 83</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9152</b>	<b>8.5816</b>	<b>14.5780</b>	<b>0.0228</b>		<b>0.4185</b>	<b>0.4185</b>		<b>0.3850</b>	<b>0.3850</b>		<b>2,206.745 2</b>	<b>2,206.745 2</b>	<b>0.7137</b>		<b>2,224.587 8</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0461	0.0295	0.4350	1.3700e-003	0.1768	9.1000e-004	0.1777	0.0469	8.3000e-004	0.0477		142.3618	142.3618	3.0700e-003	3.2500e-003	143.4083
<b>Total</b>	<b>0.0461</b>	<b>0.0295</b>	<b>0.4350</b>	<b>1.3700e-003</b>	<b>0.1768</b>	<b>9.1000e-004</b>	<b>0.1777</b>	<b>0.0469</b>	<b>8.3000e-004</b>	<b>0.0477</b>		<b>142.3618</b>	<b>142.3618</b>	<b>3.0700e-003</b>	<b>3.2500e-003</b>	<b>143.4083</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**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	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0914</b>	<b>0.0914</b>		<b>0.0914</b>	<b>0.0914</b>	<b>0.0000</b>	<b>2,206.745 2</b>	<b>2,206.745 2</b>	<b>0.7137</b>		<b>2,224.587 8</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0461	0.0295	0.4350	1.3700e-003	0.1768	9.1000e-004	0.1777	0.0469	8.3000e-004	0.0477		142.3618	142.3618	3.0700e-003	3.2500e-003	143.4083
<b>Total</b>	<b>0.0461</b>	<b>0.0295</b>	<b>0.4350</b>	<b>1.3700e-003</b>	<b>0.1768</b>	<b>9.1000e-004</b>	<b>0.1777</b>	<b>0.0469</b>	<b>8.3000e-004</b>	<b>0.0477</b>		<b>142.3618</b>	<b>142.3618</b>	<b>3.0700e-003</b>	<b>3.2500e-003</b>	<b>143.4083</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>35.2029</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.9846	0.6576	9.3469	0.0284	3.5474	0.0191	3.5665	0.9408	0.0176	0.9583		2,928.1984	2,928.1984	0.0681	0.0699	2,950.7248
<b>Total</b>	<b>0.9846</b>	<b>0.6576</b>	<b>9.3469</b>	<b>0.0284</b>	<b>3.5474</b>	<b>0.0191</b>	<b>3.5665</b>	<b>0.9408</b>	<b>0.0176</b>	<b>0.9583</b>		<b>2,928.1984</b>	<b>2,928.1984</b>	<b>0.0681</b>	<b>0.0699</b>	<b>2,950.7248</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2024**

**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	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>35.0816</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0143</b>	<b>0.0143</b>		<b>0.0143</b>	<b>0.0143</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.9846	0.6576	9.3469	0.0284	3.5474	0.0191	3.5665	0.9408	0.0176	0.9583		2,928.1984	2,928.1984	0.0681	0.0699	2,950.7248
<b>Total</b>	<b>0.9846</b>	<b>0.6576</b>	<b>9.3469</b>	<b>0.0284</b>	<b>3.5474</b>	<b>0.0191</b>	<b>3.5665</b>	<b>0.9408</b>	<b>0.0176</b>	<b>0.9583</b>		<b>2,928.1984</b>	<b>2,928.1984</b>	<b>0.0681</b>	<b>0.0699</b>	<b>2,950.7248</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>35.1930</b>	<b>1.1455</b>	<b>1.8091</b>	<b>2.9700e-003</b>		<b>0.0515</b>	<b>0.0515</b>		<b>0.0515</b>	<b>0.0515</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.9255	0.5911	8.7293	0.0274	3.5474	0.0182	3.5656	0.9408	0.0168	0.9575		2,856.7264	2,856.7264	0.0616	0.0653	2,877.7267
<b>Total</b>	<b>0.9255</b>	<b>0.5911</b>	<b>8.7293</b>	<b>0.0274</b>	<b>3.5474</b>	<b>0.0182</b>	<b>3.5656</b>	<b>0.9408</b>	<b>0.0168</b>	<b>0.9575</b>		<b>2,856.7264</b>	<b>2,856.7264</b>	<b>0.0616</b>	<b>0.0653</b>	<b>2,877.7267</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**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	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>35.0816</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0143</b>	<b>0.0143</b>		<b>0.0143</b>	<b>0.0143</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.9255	0.5911	8.7293	0.0274	3.5474	0.0182	3.5656	0.9408	0.0168	0.9575		2,856.7264	2,856.7264	0.0616	0.0653	2,877.7267
<b>Total</b>	<b>0.9255</b>	<b>0.5911</b>	<b>8.7293</b>	<b>0.0274</b>	<b>3.5474</b>	<b>0.0182</b>	<b>3.5656</b>	<b>0.9408</b>	<b>0.0168</b>	<b>0.9575</b>		<b>2,856.7264</b>	<b>2,856.7264</b>	<b>0.0616</b>	<b>0.0653</b>	<b>2,877.7267</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	20.4208	24.4239	211.6423	0.4875	55.5432	0.3587	55.9019	14.8015	0.3338	15.1352		50,968.91 35	50,968.91 35	3.1651	2.1700	51,694.69 80
Unmitigated	20.4208	24.4239	211.6423	0.4875	55.5432	0.3587	55.9019	14.8015	0.3338	15.1352		50,968.91 35	50,968.91 35	3.1651	2.1700	51,694.69 80

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,961.40	1,961.40	1,961.40	6,318,574	6,318,574
Industrial Park	2,683.70	2,683.70	2,683.70	10,672,770	10,672,770
Industrial Park	2,237.20	2,237.20	2,237.20	8,897,091	8,897,091
Office Park	139.52	139.52	139.52	471,383	471,383
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>7,021.82</b>	<b>7,021.82</b>	<b>7,021.82</b>	<b>26,359,817</b>	<b>26,359,817</b>

**4.3 Trip Type Information**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	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
Automobile Care Center	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Enclosed Parking with Elevator	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
General Office Building	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Industrial Park	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Office Park	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Other Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Parking Lot	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Unenclosed Parking with Elevator	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353
NaturalGas Unmitigated	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
Automobile Care Center	53.9288	5.8000e-004	5.2900e-003	4.4400e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3446	6.3446	1.2000e-004	1.2000e-004	6.3823
Enclosed Parking with Elevator	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
General Office Building	1708.77	0.0184	0.1675	0.1407	1.0100e-003		0.0127	0.0127		0.0127	0.0127		201.0314	201.0314	3.8500e-003	3.6900e-003	202.2261
Industrial Park	3873.21	0.0418	0.3797	0.3190	2.2800e-003		0.0289	0.0289		0.0289	0.0289		455.6712	455.6712	8.7300e-003	8.3500e-003	458.3791
Industrial Park	4646.22	0.0501	0.4555	0.3826	2.7300e-003		0.0346	0.0346		0.0346	0.0346		546.6140	546.6140	0.0105	0.0100	549.8623
Office Park	257.597	2.7800e-003	0.0253	0.0212	1.5000e-004		1.9200e-003	1.9200e-003		1.9200e-003	1.9200e-003		30.3056	30.3056	5.8000e-004	5.6000e-004	30.4857
Other Asphalt Surfaces	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
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
Unenclosed Parking with Elevator	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
<b>Total</b>		<b>0.1137</b>	<b>1.0333</b>	<b>0.8680</b>	<b>6.2000e-003</b>		<b>0.0785</b>	<b>0.0785</b>		<b>0.0785</b>	<b>0.0785</b>		<b>1,239.9668</b>	<b>1,239.9668</b>	<b>0.0238</b>	<b>0.0227</b>	<b>1,247.3353</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
Automobile Care Center	0.0539288	5.8000e-004	5.2900e-003	4.4400e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3446	6.3446	1.2000e-004	1.2000e-004	6.3823
Enclosed Parking with Elevator	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
General Office Building	1.70877	0.0184	0.1675	0.1407	1.0100e-003		0.0127	0.0127		0.0127	0.0127		201.0314	201.0314	3.8500e-003	3.6900e-003	202.2261
Industrial Park	3.87321	0.0418	0.3797	0.3190	2.2800e-003		0.0289	0.0289		0.0289	0.0289		455.6712	455.6712	8.7300e-003	8.3500e-003	458.3791
Industrial Park	4.64622	0.0501	0.4555	0.3826	2.7300e-003		0.0346	0.0346		0.0346	0.0346		546.6140	546.6140	0.0105	0.0100	549.8623
Office Park	0.257597	2.7800e-003	0.0253	0.0212	1.5000e-004		1.9200e-003	1.9200e-003		1.9200e-003	1.9200e-003		30.3056	30.3056	5.8000e-004	5.6000e-004	30.4857
Other Asphalt Surfaces	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
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
Unenclosed Parking with Elevator	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
<b>Total</b>		<b>0.1137</b>	<b>1.0333</b>	<b>0.8680</b>	<b>6.2000e-003</b>		<b>0.0785</b>	<b>0.0785</b>		<b>0.0785</b>	<b>0.0785</b>		<b>1,239.9668</b>	<b>1,239.9668</b>	<b>0.0238</b>	<b>0.0227</b>	<b>1,247.3353</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
Unmitigated	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455

**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	1.8231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.4643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0541	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
<b>Total</b>	<b>28.3415</b>	<b>5.3300e-003</b>	<b>0.5878</b>	<b>4.0000e-005</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>1.2633</b>	<b>1.2633</b>	<b>3.2900e-003</b>		<b>1.3455</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	1.8231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.4643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0541	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
<b>Total</b>	<b>28.3415</b>	<b>5.3300e-003</b>	<b>0.5878</b>	<b>4.0000e-005</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>1.2633</b>	<b>1.2633</b>	<b>3.2900e-003</b>		<b>1.3455</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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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Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Blackhall Studios AQ with Tier 3 engines  
South Coast AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	210.00	1000sqft	0.00	210,000.00	0
Office Park	33.70	1000sqft	0.00	33,700.00	0
Industrial Park	571.00	1000sqft	0.00	571,000.00	0
Industrial Park	476.00	1000sqft	93.50	476,000.00	0
Enclosed Parking with Elevator	822.00	Space	0.00	389,163.00	0
Other Asphalt Surfaces	1,042.89	1000sqft	0.00	1,042,894.00	0
Parking Lot	2,366.00	Space	0.00	821,548.00	0
Unenclosed Parking with Elevator	247.00	Space	0.00	98,800.00	0
Automobile Care Center	3.80	1000sqft	0.00	3,800.00	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>	9			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics - Project is in Santa Clarita and the utility provider is Southern California Edison

Land Use - Project Specific land uses, which are based on the Client provided project description and January 2020 plan site submittal. See assumption worksheet

Construction Phase - Applicant specific construction schedule. There is no demolition phase because the site is vacant. The architectural coating phase is assumed to occur concurrently with Building Construction

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default CalEEMod equipment for all phases

Trips and VMT - Maximum onsite emissions and due to size assuming that some of the construction truck trips are onsite and traveling the length of the project site (approx. 0.8 miles) so worker trip length increased to 15.5 to accommodate the additional site crossing.

Grading - There would be no import or export onsite. Balanced site.

Architectural Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L

Vehicle Trips - Since Both stage (trip rate 5.91) and Production Support (trip rate 4.14) are the same land use, trip rate used in the analysis is an adjusted weighted average to have daily trip generation more accurately reflect what is in the Traffic Study.

Area Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L

Energy Use - Adjusted the electricity and natural gas amount using similar annual energy consumption from another film studio

Water And Wastewater - City of Santa Clarita wastewater treated at the Saugus or Valencia Water Reclamation Plan. 100% aerobic treatments <https://www.lacsd.org/services/wastewater-sewage/santa-clarita-valley-water-reclamation-plants>. Annual amount approx. 4,129,278

Solid Waste - Defaults

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, watering and vehicle speed from Table 1 BACT applicable to all construction activity. Based on applicant information, the construction fleet >50 HP would be equipped with Tier 4 engines with level 3 DPF filters

Area Mitigation - Low VOC paint used based on SCAQMD requirements.

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	60.00	77.00
tblConstructionPhase	NumDays	155.00	99.00
tblConstructionPhase	NumDays	1,550.00	379.00
tblConstructionPhase	NumDays	110.00	190.00
tblConstructionPhase	NumDays	110.00	95.00
tblConstructionPhase	PhaseEndDate	6/23/2023	7/18/2023
tblConstructionPhase	PhaseEndDate	1/26/2024	12/4/2023
tblConstructionPhase	PhaseEndDate	1/4/2030	5/16/2025
tblConstructionPhase	PhaseEndDate	11/8/2030	5/16/2025
tblConstructionPhase	PhaseEndDate	6/7/2030	9/26/2025
tblConstructionPhase	PhaseStartDate	6/24/2023	7/19/2023
tblConstructionPhase	PhaseStartDate	1/27/2024	12/5/2023
tblConstructionPhase	PhaseStartDate	6/8/2030	8/26/2024
tblConstructionPhase	PhaseStartDate	1/5/2030	5/5/2025
tblEnergyUse	LightingElect	3.10	1.37
tblEnergyUse	LightingElect	1.75	0.77
tblEnergyUse	LightingElect	3.77	1.67
tblEnergyUse	LightingElect	3.77	1.67
tblEnergyUse	LightingElect	3.74	1.65
tblEnergyUse	LightingElect	0.35	0.15
tblEnergyUse	LightingElect	1.75	0.77
tblEnergyUse	NT24E	5.75	2.54
tblEnergyUse	NT24E	0.19	0.08
tblEnergyUse	NT24E	4.62	2.04
tblEnergyUse	NT24E	4.62	2.04
tblEnergyUse	NT24E	4.79	2.12
tblEnergyUse	NT24E	0.19	0.08



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblEnergyUse	NT24NG	4.45	1.28
tblEnergyUse	NT24NG	0.39	0.11
tblEnergyUse	NT24NG	0.39	0.11
tblEnergyUse	NT24NG	0.19	0.05
tblEnergyUse	T24E	2.01	0.89
tblEnergyUse	T24E	3.50	1.55
tblEnergyUse	T24E	4.11	1.82
tblEnergyUse	T24E	4.11	1.82
tblEnergyUse	T24E	5.01	2.21
tblEnergyUse	T24NG	13.51	3.90
tblEnergyUse	T24NG	9.92	2.86
tblEnergyUse	T24NG	9.92	2.86
tblEnergyUse	T24NG	9.50	2.74
tblLandUse	LandUseSquareFeet	328,800.00	389,163.00
tblLandUse	LandUseSquareFeet	1,042,890.00	1,042,894.00
tblLandUse	LandUseSquareFeet	946,400.00	821,548.00
tblLandUse	LotAcreage	4.82	0.00
tblLandUse	LotAcreage	0.77	0.00
tblLandUse	LotAcreage	13.11	0.00
tblLandUse	LotAcreage	10.93	93.50
tblLandUse	LotAcreage	7.40	0.00
tblLandUse	LotAcreage	23.94	0.00
tblLandUse	LotAcreage	21.29	0.00
tblLandUse	LotAcreage	2.22	0.00
tblLandUse	LotAcreage	0.09	0.00
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblWater	IndoorWaterUseRate	357,508.21	0.00
tblWater	IndoorWaterUseRate	37,324,087.08	4,129,278.00
tblWater	IndoorWaterUseRate	242,118,750.00	0.00
tblWater	IndoorWaterUseRate	5,989,627.31	0.00
tblWater	OutdoorWaterUseRate	219,117.93	0.00
tblWater	OutdoorWaterUseRate	22,876,053.37	0.00
tblWater	OutdoorWaterUseRate	3,671,061.90	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

**2.0 Emissions Summary**

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Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
2023	7.2054	39.4631	80.3228	0.2912	21.5898	1.4258	22.5155	10.1587	1.3118	11.3245	0.0000	30,183.8206	30,183.8206	1.9492	2.0516	30,829.5469
2024	42.8903	40.0819	88.5212	0.3181	25.1372	0.9155	26.0527	6.7533	0.8645	7.6178	0.0000	33,063.6389	33,063.6389	1.4186	2.0710	33,716.2598
2025	43.3693	47.1755	99.2281	0.3342	25.3139	1.2349	26.5488	6.8002	1.1558	7.9560	0.0000	34,754.4789	34,754.4789	2.0931	2.0197	35,408.6610
<b>Maximum</b>	<b>43.3693</b>	<b>47.1755</b>	<b>99.2281</b>	<b>0.3342</b>	<b>25.3139</b>	<b>1.4258</b>	<b>26.5488</b>	<b>10.1587</b>	<b>1.3118</b>	<b>11.3245</b>	<b>0.0000</b>	<b>34,754.4789</b>	<b>34,754.4789</b>	<b>2.0931</b>	<b>2.0710</b>	<b>35,408.6610</b>

**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					
2023	6.4551	39.0345	82.1337	0.2912	21.5898	0.4014	21.9911	5.8125	0.3880	6.2005	0.0000	30,183.8206	30,183.8206	1.9492	2.0516	30,829.5469
2024	42.1013	40.6928	90.4173	0.3181	25.1372	0.4232	25.5603	6.7533	0.4086	7.1619	0.0000	33,063.6389	33,063.6389	1.4186	2.0710	33,716.2598
2025	42.3241	51.5087	103.9130	0.3342	25.3139	0.5041	25.8180	6.8002	0.4898	7.2900	0.0000	34,754.4789	34,754.4789	2.0931	2.0197	35,408.6610
<b>Maximum</b>	<b>42.3241</b>	<b>51.5087</b>	<b>103.9130</b>	<b>0.3342</b>	<b>25.3139</b>	<b>0.5041</b>	<b>25.8180</b>	<b>6.8002</b>	<b>0.4898</b>	<b>7.2900</b>	<b>0.0000</b>	<b>34,754.4789</b>	<b>34,754.4789</b>	<b>2.0931</b>	<b>2.0710</b>	<b>35,408.6610</b>

## Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	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	2.77	-3.56	-3.13	0.00	0.00	62.85	2.33	18.33	61.40	23.22	0.00	0.00	0.00	0.00	0.00	0.00

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
Energy	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353
Mobile	21.1391	22.7371	219.7328	0.5113	55.5432	0.3586	55.9018	14.8015	0.3336	15.1351		53,448.7545	53,448.7545	3.0887	2.0906	54,148.9688
<b>Total</b>	<b>49.5942</b>	<b>23.7758</b>	<b>221.1886</b>	<b>0.5176</b>	<b>55.5432</b>	<b>0.4392</b>	<b>55.9824</b>	<b>14.8015</b>	<b>0.4142</b>	<b>15.2157</b>		<b>54,689.9846</b>	<b>54,689.9846</b>	<b>3.1158</b>	<b>2.1133</b>	<b>55,397.6495</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	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
Energy	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353
Mobile	21.1391	22.7371	219.7328	0.5113	55.5432	0.3586	55.9018	14.8015	0.3336	15.1351		53,448.7545	53,448.7545	3.0887	2.0906	54,148.9688
<b>Total</b>	<b>49.5942</b>	<b>23.7758</b>	<b>221.1886</b>	<b>0.5176</b>	<b>55.5432</b>	<b>0.4392</b>	<b>55.9824</b>	<b>14.8015</b>	<b>0.4142</b>	<b>15.2157</b>		<b>54,689.9846</b>	<b>54,689.9846</b>	<b>3.1158</b>	<b>2.1133</b>	<b>55,397.6495</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	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	4/3/2023	7/18/2023	5	77	
2	Grading	Grading	7/19/2023	12/4/2023	5	99	
3	Building Construction	Building Construction	12/5/2023	5/16/2025	5	379	
4	Paving	Paving	5/5/2025	9/26/2025	5	95	
5	Architectural Coating	Architectural Coating	8/26/2024	5/16/2025	5	190	

**Acres of Grading (Site Preparation Phase): 115.5**

**Acres of Grading (Grading Phase): 297**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,941,750; Non-Residential Outdoor: 647,250; Striped Parking Area: 141,144 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**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	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,507.00	598.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	301.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>		<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0594	0.0403	0.6633	1.8600e-003	0.2121	1.1900e-003	0.2133	0.0563	1.1000e-003	0.0574		189.9849	189.9849	4.4500e-003	4.2300e-003	191.3580
<b>Total</b>	<b>0.0594</b>	<b>0.0403</b>	<b>0.6633</b>	<b>1.8600e-003</b>	<b>0.2121</b>	<b>1.1900e-003</b>	<b>0.2133</b>	<b>0.0563</b>	<b>1.1000e-003</b>	<b>0.0574</b>		<b>189.9849</b>	<b>189.9849</b>	<b>4.4500e-003</b>	<b>4.2300e-003</b>	<b>191.3580</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2023**

**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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0381		0.1419	0.1419		0.1419	0.1419	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>0.9312</b>	<b>19.0656</b>	<b>22.9600</b>	<b>0.0381</b>	<b>8.8457</b>	<b>0.1419</b>	<b>8.9876</b>	<b>4.5461</b>	<b>0.1419</b>	<b>4.6880</b>	<b>0.0000</b>	<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0594	0.0403	0.6633	1.8600e-003	0.2121	1.1900e-003	0.2133	0.0563	1.1000e-003	0.0574		189.9849	189.9849	4.4500e-003	4.2300e-003	191.3580
<b>Total</b>	<b>0.0594</b>	<b>0.0403</b>	<b>0.6633</b>	<b>1.8600e-003</b>	<b>0.2121</b>	<b>1.1900e-003</b>	<b>0.2133</b>	<b>0.0563</b>	<b>1.1000e-003</b>	<b>0.0574</b>		<b>189.9849</b>	<b>189.9849</b>	<b>4.4500e-003</b>	<b>4.2300e-003</b>	<b>191.3580</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>3.3217</b>	<b>34.5156</b>	<b>28.0512</b>	<b>0.0621</b>	<b>9.2036</b>	<b>1.4245</b>	<b>10.6281</b>	<b>3.6538</b>	<b>1.3105</b>	<b>4.9643</b>		<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0660	0.0447	0.7370	2.0600e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2200e-003	0.0637		211.0944	211.0944	4.9400e-003	4.7000e-003	212.6200
<b>Total</b>	<b>0.0660</b>	<b>0.0447</b>	<b>0.7370</b>	<b>2.0600e-003</b>	<b>0.2357</b>	<b>1.3200e-003</b>	<b>0.2370</b>	<b>0.0625</b>	<b>1.2200e-003</b>	<b>0.0637</b>		<b>211.0944</b>	<b>211.0944</b>	<b>4.9400e-003</b>	<b>4.7000e-003</b>	<b>212.6200</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2023**

**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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	1.5231	29.9782	36.7226	0.0621		0.1949	0.1949		0.1949	0.1949	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>1.5231</b>	<b>29.9782</b>	<b>36.7226</b>	<b>0.0621</b>	<b>4.1416</b>	<b>0.1949</b>	<b>4.3365</b>	<b>1.6442</b>	<b>0.1949</b>	<b>1.8391</b>	<b>0.0000</b>	<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0660	0.0447	0.7370	2.0600e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2200e-003	0.0637		211.0944	211.0944	4.9400e-003	4.7000e-003	212.6200
<b>Total</b>	<b>0.0660</b>	<b>0.0447</b>	<b>0.7370</b>	<b>2.0600e-003</b>	<b>0.2357</b>	<b>1.3200e-003</b>	<b>0.2370</b>	<b>0.0625</b>	<b>1.2200e-003</b>	<b>0.0637</b>		<b>211.0944</b>	<b>211.0944</b>	<b>4.9400e-003</b>	<b>4.7000e-003</b>	<b>212.6200</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6613	21.7074	8.5461	0.1088	3.8291	0.1264	3.9555	1.1025	0.1209	1.2234		11,722.6492	11,722.6492	0.3940	1.6971	12,238.2280
Worker	4.9714	3.3708	55.5327	0.1554	17.7606	0.0996	17.8603	4.7101	0.0917	4.8018		15,905.9616	15,905.9616	0.3723	0.3545	16,020.9129
<b>Total</b>	<b>5.6327</b>	<b>25.0782</b>	<b>64.0788</b>	<b>0.2643</b>	<b>21.5898</b>	<b>0.2260</b>	<b>21.8158</b>	<b>5.8125</b>	<b>0.2126</b>	<b>6.0252</b>		<b>27,628.6107</b>	<b>27,628.6107</b>	<b>0.7663</b>	<b>2.0516</b>	<b>28,259.1409</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2023**

**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	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>0.8225</b>	<b>13.9563</b>	<b>18.0549</b>	<b>0.0269</b>		<b>0.1753</b>	<b>0.1753</b>		<b>0.1753</b>	<b>0.1753</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6613	21.7074	8.5461	0.1088	3.8291	0.1264	3.9555	1.1025	0.1209	1.2234		11,722.6492	11,722.6492	0.3940	1.6971	12,238.2280
Worker	4.9714	3.3708	55.5327	0.1554	17.7606	0.0996	17.8603	4.7101	0.0917	4.8018		15,905.9616	15,905.9616	0.3723	0.3545	16,020.9129
<b>Total</b>	<b>5.6327</b>	<b>25.0782</b>	<b>64.0788</b>	<b>0.2643</b>	<b>21.5898</b>	<b>0.2260</b>	<b>21.8158</b>	<b>5.8125</b>	<b>0.2126</b>	<b>6.0252</b>		<b>27,628.6107</b>	<b>27,628.6107</b>	<b>0.7663</b>	<b>2.0516</b>	<b>28,259.1409</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6456	21.8061	8.4056	0.1072	3.8291	0.1267	3.9558	1.1024	0.1212	1.2236		11,554.0082	11,554.0082	0.3940	1.6751	12,063.0470
Worker	4.6429	3.0117	51.7937	0.1509	17.7606	0.0955	17.8561	4.7101	0.0879	4.7980		15,563.8457	15,563.8457	0.3371	0.3300	15,670.6002
<b>Total</b>	<b>5.2885</b>	<b>24.8178</b>	<b>60.1992</b>	<b>0.2581</b>	<b>21.5897</b>	<b>0.2222</b>	<b>21.8119</b>	<b>5.8125</b>	<b>0.2091</b>	<b>6.0216</b>		<b>27,117.8538</b>	<b>27,117.8538</b>	<b>0.7311</b>	<b>2.0051</b>	<b>27,733.6472</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**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	0.8039	13.9165	18.0406	0.0270		0.1677	0.1677		0.1677	0.1677	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>0.8039</b>	<b>13.9165</b>	<b>18.0406</b>	<b>0.0270</b>		<b>0.1677</b>	<b>0.1677</b>		<b>0.1677</b>	<b>0.1677</b>	<b>0.0000</b>	<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6456	21.8061	8.4056	0.1072	3.8291	0.1267	3.9558	1.1024	0.1212	1.2236		11,554.0082	11,554.0082	0.3940	1.6751	12,063.0470
Worker	4.6429	3.0117	51.7937	0.1509	17.7606	0.0955	17.8561	4.7101	0.0879	4.7980		15,563.8457	15,563.8457	0.3371	0.3300	15,670.6002
<b>Total</b>	<b>5.2885</b>	<b>24.8178</b>	<b>60.1992</b>	<b>0.2581</b>	<b>21.5897</b>	<b>0.2222</b>	<b>21.8119</b>	<b>5.8125</b>	<b>0.2091</b>	<b>6.0216</b>		<b>27,117.8538</b>	<b>27,117.8538</b>	<b>0.7311</b>	<b>2.0051</b>	<b>27,733.6472</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
<b>Total</b>	<b>1.3674</b>	<b>12.4697</b>	<b>16.0847</b>	<b>0.0270</b>		<b>0.5276</b>	<b>0.5276</b>		<b>0.4963</b>	<b>0.4963</b>		<b>2,556.474 4</b>	<b>2,556.474 4</b>	<b>0.6010</b>		<b>2,571.498 1</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6314	21.7030	8.2791	0.1052	3.8291	0.1271	3.9562	1.1024	0.1216	1.2240		11,343.41 75	11,343.41 75	0.3952	1.6465	11,843.95 12
Worker	4.3501	2.7079	48.3408	0.1457	17.7606	0.0911	17.8517	4.7101	0.0838	4.7939		15,182.75 13	15,182.75 13	0.3041	0.3085	15,282.27 96
<b>Total</b>	<b>4.9815</b>	<b>24.4109</b>	<b>56.6198</b>	<b>0.2509</b>	<b>21.5897</b>	<b>0.2182</b>	<b>21.8079</b>	<b>5.8125</b>	<b>0.2054</b>	<b>6.0180</b>		<b>26,526.16 88</b>	<b>26,526.16 88</b>	<b>0.6993</b>	<b>1.9550</b>	<b>27,126.23 07</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**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	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
<b>Total</b>	<b>0.7878</b>	<b>13.8778</b>	<b>18.0286</b>	<b>0.0270</b>		<b>0.1611</b>	<b>0.1611</b>		<b>0.1611</b>	<b>0.1611</b>	<b>0.0000</b>	<b>2,556.474 4</b>	<b>2,556.474 4</b>	<b>0.6010</b>		<b>2,571.498 1</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6314	21.7030	8.2791	0.1052	3.8291	0.1271	3.9562	1.1024	0.1216	1.2240		11,343.41 75	11,343.41 75	0.3952	1.6465	11,843.95 12
Worker	4.3501	2.7079	48.3408	0.1457	17.7606	0.0911	17.8517	4.7101	0.0838	4.7939		15,182.75 13	15,182.75 13	0.3041	0.3085	15,282.27 96
<b>Total</b>	<b>4.9815</b>	<b>24.4109</b>	<b>56.6198</b>	<b>0.2509</b>	<b>21.5897</b>	<b>0.2182</b>	<b>21.8079</b>	<b>5.8125</b>	<b>0.2054</b>	<b>6.0180</b>		<b>26,526.16 88</b>	<b>26,526.16 88</b>	<b>0.6993</b>	<b>1.9550</b>	<b>27,126.23 07</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9152</b>	<b>8.5816</b>	<b>14.5780</b>	<b>0.0228</b>		<b>0.4185</b>	<b>0.4185</b>		<b>0.3850</b>	<b>0.3850</b>		<b>2,206.745 2</b>	<b>2,206.745 2</b>	<b>0.7137</b>		<b>2,224.587 8</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0433	0.0270	0.4812	1.4500e-003	0.1768	9.1000e-004	0.1777	0.0469	8.3000e-004	0.0477		151.1223	151.1223	3.0300e-003	3.0700e-003	152.1129
<b>Total</b>	<b>0.0433</b>	<b>0.0270</b>	<b>0.4812</b>	<b>1.4500e-003</b>	<b>0.1768</b>	<b>9.1000e-004</b>	<b>0.1777</b>	<b>0.0469</b>	<b>8.3000e-004</b>	<b>0.0477</b>		<b>151.1223</b>	<b>151.1223</b>	<b>3.0300e-003</b>	<b>3.0700e-003</b>	<b>152.1129</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**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	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0914</b>	<b>0.0914</b>		<b>0.0914</b>	<b>0.0914</b>	<b>0.0000</b>	<b>2,206.745 2</b>	<b>2,206.745 2</b>	<b>0.7137</b>		<b>2,224.587 8</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0433	0.0270	0.4812	1.4500e-003	0.1768	9.1000e-004	0.1777	0.0469	8.3000e-004	0.0477		151.1223	151.1223	3.0300e-003	3.0700e-003	152.1129
<b>Total</b>	<b>0.0433</b>	<b>0.0270</b>	<b>0.4812</b>	<b>1.4500e-003</b>	<b>0.1768</b>	<b>9.1000e-004</b>	<b>0.1777</b>	<b>0.0469</b>	<b>8.3000e-004</b>	<b>0.0477</b>		<b>151.1223</b>	<b>151.1223</b>	<b>3.0300e-003</b>	<b>3.0700e-003</b>	<b>152.1129</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>35.2029</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.9273	0.6015	10.3450	0.0301	3.5474	0.0191	3.5665	0.9408	0.0176	0.9583		3,108.6381	3,108.6381	0.0673	0.0659	3,129.9606
<b>Total</b>	<b>0.9273</b>	<b>0.6015</b>	<b>10.3450</b>	<b>0.0301</b>	<b>3.5474</b>	<b>0.0191</b>	<b>3.5665</b>	<b>0.9408</b>	<b>0.0176</b>	<b>0.9583</b>		<b>3,108.6381</b>	<b>3,108.6381</b>	<b>0.0673</b>	<b>0.0659</b>	<b>3,129.9606</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2024**

**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	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>35.0816</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0143</b>	<b>0.0143</b>		<b>0.0143</b>	<b>0.0143</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.9273	0.6015	10.3450	0.0301	3.5474	0.0191	3.5665	0.9408	0.0176	0.9583		3,108.6381	3,108.6381	0.0673	0.0659	3,129.9606
<b>Total</b>	<b>0.9273</b>	<b>0.6015</b>	<b>10.3450</b>	<b>0.0301</b>	<b>3.5474</b>	<b>0.0191</b>	<b>3.5665</b>	<b>0.9408</b>	<b>0.0176</b>	<b>0.9583</b>		<b>3,108.6381</b>	<b>3,108.6381</b>	<b>0.0673</b>	<b>0.0659</b>	<b>3,129.9606</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>35.1930</b>	<b>1.1455</b>	<b>1.8091</b>	<b>2.9700e-003</b>		<b>0.0515</b>	<b>0.0515</b>		<b>0.0515</b>	<b>0.0515</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.8689	0.5409	9.6553	0.0291	3.5474	0.0182	3.5656	0.9408	0.0168	0.9575		3,032.5203	3,032.5203	0.0607	0.0616	3,052.3996
<b>Total</b>	<b>0.8689</b>	<b>0.5409</b>	<b>9.6553</b>	<b>0.0291</b>	<b>3.5474</b>	<b>0.0182</b>	<b>3.5656</b>	<b>0.9408</b>	<b>0.0168</b>	<b>0.9575</b>		<b>3,032.5203</b>	<b>3,032.5203</b>	<b>0.0607</b>	<b>0.0616</b>	<b>3,052.3996</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**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	35.0222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>35.0816</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0143</b>	<b>0.0143</b>		<b>0.0143</b>	<b>0.0143</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.8689	0.5409	9.6553	0.0291	3.5474	0.0182	3.5656	0.9408	0.0168	0.9575		3,032.5203	3,032.5203	0.0607	0.0616	3,052.3996
<b>Total</b>	<b>0.8689</b>	<b>0.5409</b>	<b>9.6553</b>	<b>0.0291</b>	<b>3.5474</b>	<b>0.0182</b>	<b>3.5656</b>	<b>0.9408</b>	<b>0.0168</b>	<b>0.9575</b>		<b>3,032.5203</b>	<b>3,032.5203</b>	<b>0.0607</b>	<b>0.0616</b>	<b>3,052.3996</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.1391	22.7371	219.7328	0.5113	55.5432	0.3586	55.9018	14.8015	0.3336	15.1351		53,448.75 45	53,448.75 45	3.0887	2.0906	54,148.96 88
Unmitigated	21.1391	22.7371	219.7328	0.5113	55.5432	0.3586	55.9018	14.8015	0.3336	15.1351		53,448.75 45	53,448.75 45	3.0887	2.0906	54,148.96 88

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,961.40	1,961.40	1961.40	6,318,574	6,318,574
Industrial Park	2,683.70	2,683.70	2683.70	10,672,770	10,672,770
Industrial Park	2,237.20	2,237.20	2237.20	8,897,091	8,897,091
Office Park	139.52	139.52	139.52	471,383	471,383
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>7,021.82</b>	<b>7,021.82</b>	<b>7,021.82</b>	<b>26,359,817</b>	<b>26,359,817</b>

**4.3 Trip Type Information**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	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
Automobile Care Center	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Enclosed Parking with Elevator	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
General Office Building	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Industrial Park	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Office Park	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Other Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Parking Lot	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Unenclosed Parking with Elevator	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353
NaturalGas Unmitigated	0.1137	1.0333	0.8680	6.2000e-003		0.0785	0.0785		0.0785	0.0785		1,239.9668	1,239.9668	0.0238	0.0227	1,247.3353

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
Automobile Care Center	53.9288	5.8000e-004	5.2900e-003	4.4400e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3446	6.3446	1.2000e-004	1.2000e-004	6.3823
Enclosed Parking with Elevator	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
General Office Building	1708.77	0.0184	0.1675	0.1407	1.0100e-003		0.0127	0.0127		0.0127	0.0127		201.0314	201.0314	3.8500e-003	3.6900e-003	202.2261
Industrial Park	3873.21	0.0418	0.3797	0.3190	2.2800e-003		0.0289	0.0289		0.0289	0.0289		455.6712	455.6712	8.7300e-003	8.3500e-003	458.3791
Industrial Park	4646.22	0.0501	0.4555	0.3826	2.7300e-003		0.0346	0.0346		0.0346	0.0346		546.6140	546.6140	0.0105	0.0100	549.8623
Office Park	257.597	2.7800e-003	0.0253	0.0212	1.5000e-004		1.9200e-003	1.9200e-003		1.9200e-003	1.9200e-003		30.3056	30.3056	5.8000e-004	5.6000e-004	30.4857
Other Asphalt Surfaces	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
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
Unenclosed Parking with Elevator	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
<b>Total</b>		<b>0.1137</b>	<b>1.0333</b>	<b>0.8680</b>	<b>6.2000e-003</b>		<b>0.0785</b>	<b>0.0785</b>		<b>0.0785</b>	<b>0.0785</b>		<b>1,239.9668</b>	<b>1,239.9668</b>	<b>0.0238</b>	<b>0.0227</b>	<b>1,247.3353</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
Automobile Care Center	0.0539288	5.8000e-004	5.2900e-003	4.4400e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3446	6.3446	1.2000e-004	1.2000e-004	6.3823
Enclosed Parking with Elevator	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
General Office Building	1.70877	0.0184	0.1675	0.1407	1.0100e-003		0.0127	0.0127		0.0127	0.0127		201.0314	201.0314	3.8500e-003	3.6900e-003	202.2261
Industrial Park	3.87321	0.0418	0.3797	0.3190	2.2800e-003		0.0289	0.0289		0.0289	0.0289		455.6712	455.6712	8.7300e-003	8.3500e-003	458.3791
Industrial Park	4.64622	0.0501	0.4555	0.3826	2.7300e-003		0.0346	0.0346		0.0346	0.0346		546.6140	546.6140	0.0105	0.0100	549.8623
Office Park	0.257597	2.7800e-003	0.0253	0.0212	1.5000e-004		1.9200e-003	1.9200e-003		1.9200e-003	1.9200e-003		30.3056	30.3056	5.8000e-004	5.6000e-004	30.4857
Other Asphalt Surfaces	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
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
Unenclosed Parking with Elevator	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
<b>Total</b>		<b>0.1137</b>	<b>1.0333</b>	<b>0.8680</b>	<b>6.2000e-003</b>		<b>0.0785</b>	<b>0.0785</b>		<b>0.0785</b>	<b>0.0785</b>		<b>1,239.9668</b>	<b>1,239.9668</b>	<b>0.0238</b>	<b>0.0227</b>	<b>1,247.3353</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
Unmitigated	28.3415	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455

**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	1.8231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.4643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0541	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
<b>Total</b>	<b>28.3415</b>	<b>5.3300e-003</b>	<b>0.5878</b>	<b>4.0000e-005</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>1.2633</b>	<b>1.2633</b>	<b>3.2900e-003</b>		<b>1.3455</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	1.8231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.4643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0541	5.3300e-003	0.5878	4.0000e-005		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003		1.2633	1.2633	3.2900e-003		1.3455
<b>Total</b>	<b>28.3415</b>	<b>5.3300e-003</b>	<b>0.5878</b>	<b>4.0000e-005</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>2.0900e-003</b>	<b>2.0900e-003</b>		<b>1.2633</b>	<b>1.2633</b>	<b>3.2900e-003</b>		<b>1.3455</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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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Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Blackhall Studios AQ with Tier 3 engines  
South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	210.00	1000sqft	0.00	210,000.00	0
Office Park	33.70	1000sqft	0.00	33,700.00	0
Industrial Park	571.00	1000sqft	0.00	571,000.00	0
Industrial Park	476.00	1000sqft	93.50	476,000.00	0
Enclosed Parking with Elevator	822.00	Space	0.00	389,163.00	0
Other Asphalt Surfaces	1,042.89	1000sqft	0.00	1,042,894.00	0
Parking Lot	2,366.00	Space	0.00	821,548.00	0
Unenclosed Parking with Elevator	247.00	Space	0.00	98,800.00	0
Automobile Care Center	3.80	1000sqft	0.00	3,800.00	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>	9			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics - Project is in Santa Clarita and the utility provider is Southern California Edison

Land Use - Project Specific land uses, which are based on the Client provided project description and January 2020 plan site submittal. See assumption worksheet

Construction Phase - Applicant specific construction schedule. There is no demolition phase because the site is vacant. The architectural coating phase is assumed to occur concurrently with Building Construction

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default CalEEMod equipment for all phases

Trips and VMT - Maximum onsite emissions and due to size assuming that some of the construction truck trips are onsite and traveling the length of the project site (approx. 0.8 miles) so worker trip length increased to 15.5 to accommodate the additional site crossing.

Grading - There would be no import or export onsite. Balanced site.

Architectural Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L

Vehicle Trips - Project Specific Trip Generation Estimates for Stage, Support, and Production Office. Applied daily rate for weekday, Saturday, and Sunday trips. Since Both stage (trip rate 5.91) and Production Support (trip rate 4.14) are the same land use, trip rate used in the analysis is an adjusted weighted average to have daily trip generation more accurately reflect what is in the Traffic Study..

Area Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L

Energy Use - Adjusted the electricity and natural gas amount using similar annual energy consumption from another film studio

Water And Wastewater - City of Santa Clarita wastewater treated at the Saugus or Valencia Water Reclamation Plan. 100% aerobic treatments <https://www.lacsd.org/services/wastewater-sewage/santa-clarita-valley-water-reclamation-plants>. Annual amount approx. 4,129,278

Solid Waste - Defaults

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, watering and vehicle speed from Table 1 BACT applicable to all construction activity. Based on applicant information, the construction fleet >50 HP would be equipped with Tier 4 engines with level 3 DPF filters

Area Mitigation - Low VOC paint used based on SCAQMD requirements.

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	60.00	77.00
tblConstructionPhase	NumDays	155.00	99.00
tblConstructionPhase	NumDays	1,550.00	379.00
tblConstructionPhase	NumDays	110.00	190.00
tblConstructionPhase	NumDays	110.00	95.00
tblConstructionPhase	PhaseEndDate	6/23/2023	7/18/2023
tblConstructionPhase	PhaseEndDate	1/26/2024	12/4/2023
tblConstructionPhase	PhaseEndDate	1/4/2030	5/16/2025
tblConstructionPhase	PhaseEndDate	11/8/2030	5/16/2025
tblConstructionPhase	PhaseEndDate	6/7/2030	9/26/2025
tblConstructionPhase	PhaseStartDate	6/24/2023	7/19/2023
tblConstructionPhase	PhaseStartDate	1/27/2024	12/5/2023
tblConstructionPhase	PhaseStartDate	6/8/2030	8/26/2024
tblConstructionPhase	PhaseStartDate	1/5/2030	5/5/2025
tblEnergyUse	LightingElect	3.10	1.37
tblEnergyUse	LightingElect	1.75	0.77
tblEnergyUse	LightingElect	3.77	1.67
tblEnergyUse	LightingElect	3.77	1.67
tblEnergyUse	LightingElect	3.74	1.65
tblEnergyUse	LightingElect	0.35	0.15
tblEnergyUse	LightingElect	1.75	0.77
tblEnergyUse	NT24E	5.75	2.54
tblEnergyUse	NT24E	0.19	0.08
tblEnergyUse	NT24E	4.62	2.04
tblEnergyUse	NT24E	4.62	2.04
tblEnergyUse	NT24E	4.79	2.12
tblEnergyUse	NT24E	0.19	0.08

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblEnergyUse	NT24NG	4.45	1.28
tblEnergyUse	NT24NG	0.39	0.11
tblEnergyUse	NT24NG	0.39	0.11
tblEnergyUse	NT24NG	0.19	0.05
tblEnergyUse	T24E	2.01	0.89
tblEnergyUse	T24E	3.50	1.55
tblEnergyUse	T24E	4.11	1.82
tblEnergyUse	T24E	4.11	1.82
tblEnergyUse	T24E	5.01	2.21
tblEnergyUse	T24NG	13.51	3.90
tblEnergyUse	T24NG	9.92	2.86
tblEnergyUse	T24NG	9.92	2.86
tblEnergyUse	T24NG	9.50	2.74
tblLandUse	LandUseSquareFeet	328,800.00	389,163.00
tblLandUse	LandUseSquareFeet	1,042,890.00	1,042,894.00
tblLandUse	LandUseSquareFeet	946,400.00	821,548.00
tblLandUse	LotAcreage	4.82	0.00
tblLandUse	LotAcreage	0.77	0.00
tblLandUse	LotAcreage	13.11	0.00
tblLandUse	LotAcreage	10.93	93.50
tblLandUse	LotAcreage	7.40	0.00
tblLandUse	LotAcreage	23.94	0.00
tblLandUse	LotAcreage	21.29	0.00
tblLandUse	LotAcreage	2.22	0.00
tblLandUse	LotAcreage	0.09	0.00
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblWater	IndoorWaterUseRate	357,508.21	0.00
tblWater	IndoorWaterUseRate	37,324,087.08	4,129,278.00
tblWater	IndoorWaterUseRate	242,118,750.00	0.00
tblWater	IndoorWaterUseRate	5,989,627.31	0.00
tblWater	OutdoorWaterUseRate	219,117.93	0.00
tblWater	OutdoorWaterUseRate	22,876,053.37	0.00
tblWater	OutdoorWaterUseRate	3,671,061.90	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

**2.0 Emissions Summary**

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Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
2023	0.3395	3.1613	2.8753	7.4100e-003	1.4333	0.1282	1.5614	0.6293	0.1181	0.7474	0.0000	668.3705	668.3705	0.1412	0.0183	677.3631
2024	2.5320	5.2873	10.0646	0.0380	2.9379	0.1132	3.0511	0.7916	0.1066	0.8982	0.0000	3,582.6130	3,582.6130	0.1626	0.2446	3,659.5655
2025	2.1226	2.4132	4.7190	0.0161	1.2187	0.0620	1.2807	0.3279	0.0580	0.3859	0.0000	1,517.1874	1,517.1874	0.0955	0.0912	1,546.7444
<b>Maximum</b>	<b>2.5320</b>	<b>5.2873</b>	<b>10.0646</b>	<b>0.0380</b>	<b>2.9379</b>	<b>0.1282</b>	<b>3.0511</b>	<b>0.7916</b>	<b>0.1181</b>	<b>0.8982</b>	<b>0.0000</b>	<b>3,582.6130</b>	<b>3,582.6130</b>	<b>0.1626</b>	<b>0.2446</b>	<b>3,659.5655</b>

**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					
2023	0.1768	2.6070	3.5032	7.4100e-003	0.7665	0.0190	0.7855	0.3159	0.0189	0.3348	0.0000	668.3700	668.3700	0.1412	0.0183	677.3625
2024	2.4389	5.3556	10.3111	0.0380	2.9379	0.0526	2.9905	0.7916	0.0509	0.8424	0.0000	3,582.6127	3,582.6127	0.1626	0.2446	3,659.5652
2025	2.0701	2.6350	4.9580	0.0161	1.2187	0.0250	1.2438	0.3279	0.0243	0.3522	0.0000	1,517.1871	1,517.1871	0.0955	0.0912	1,546.7441
<b>Maximum</b>	<b>2.4389</b>	<b>5.3556</b>	<b>10.3111</b>	<b>0.0380</b>	<b>2.9379</b>	<b>0.0526</b>	<b>2.9905</b>	<b>0.7916</b>	<b>0.0509</b>	<b>0.8424</b>	<b>0.0000</b>	<b>3,582.6127</b>	<b>3,582.6127</b>	<b>0.1626</b>	<b>0.2446</b>	<b>3,659.5652</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	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	6.17	2.43	-6.31	0.00	11.93	68.12	14.82	17.92	66.72	24.71	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	4-3-2023	7-2-2023	0.9842	0.6531
2	7-3-2023	10-2-2023	1.2031	0.9729
3	10-3-2023	1-2-2024	1.3533	1.1992
4	1-3-2024	4-2-2024	1.5147	1.5084
5	4-3-2024	7-2-2024	1.4632	1.4569
6	7-3-2024	10-2-2024	1.9956	1.9894
7	10-3-2024	1-2-2025	2.7817	2.7767
8	1-3-2025	4-2-2025	2.6560	2.6858
9	4-3-2025	7-2-2025	1.4741	1.5384
10	7-3-2025	9-30-2025	0.2938	0.3663
		Highest	2.7817	2.7767

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	5.1692	6.7000e-004	0.0735	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1433	0.1433	3.7000e-004	0.0000	0.1526
Energy	0.0207	0.1886	0.1584	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	1,679.4184	1,679.4184	0.1284	0.0189	1,688.2431
Mobile	3.6677	4.5041	38.9773	0.0897	9.9239	0.0652	9.9891	2.6485	0.0607	2.7091	0.0000	8,506.3275	8,506.3275	0.5204	0.3605	8,626.7764
Waste						0.0000	0.0000		0.0000	0.0000	312.4924	0.0000	312.4924	18.4678	0.0000	774.1867
Water						0.0000	0.0000		0.0000	0.0000	1.4610	9.5354	10.9963	5.8300e-003	3.2700e-003	12.1180
<b>Total</b>	<b>8.8576</b>	<b>4.6934</b>	<b>39.2092</b>	<b>0.0908</b>	<b>9.9239</b>	<b>0.0798</b>	<b>10.0037</b>	<b>2.6485</b>	<b>0.0752</b>	<b>2.7237</b>	<b>313.9534</b>	<b>10,195.4245</b>	<b>10,509.3779</b>	<b>19.1227</b>	<b>0.3827</b>	<b>11,101.4768</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	5.1692	6.7000e-004	0.0735	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1433	0.1433	3.7000e-004	0.0000	0.1526
Energy	0.0207	0.1886	0.1584	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	1,679.4184	1,679.4184	0.1284	0.0189	1,688.2431
Mobile	3.6677	4.5041	38.9773	0.0897	9.9239	0.0652	9.9891	2.6485	0.0607	2.7091	0.0000	8,506.3275	8,506.3275	0.5204	0.3605	8,626.7764
Waste						0.0000	0.0000		0.0000	0.0000	312.4924	0.0000	312.4924	18.4678	0.0000	774.1867
Water						0.0000	0.0000		0.0000	0.0000	1.4610	9.5354	10.9963	5.8300e-003	3.2700e-003	12.1180
<b>Total</b>	<b>8.8576</b>	<b>4.6934</b>	<b>39.2092</b>	<b>0.0908</b>	<b>9.9239</b>	<b>0.0798</b>	<b>10.0037</b>	<b>2.6485</b>	<b>0.0752</b>	<b>2.7237</b>	<b>313.9534</b>	<b>10,195.4245</b>	<b>10,509.3779</b>	<b>19.1227</b>	<b>0.3827</b>	<b>11,101.4768</b>

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

**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	4/3/2023	7/18/2023	5	77	
2	Grading	Grading	7/19/2023	12/4/2023	5	99	
3	Building Construction	Building Construction	12/5/2023	5/16/2025	5	379	

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

4	Paving	Paving	5/5/2025	9/26/2025	5	95
5	Architectural Coating	Architectural Coating	8/26/2024	5/16/2025	5	190

**Acres of Grading (Site Preparation Phase): 115.5**

**Acres of Grading (Grading Phase): 297**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,941,750; Non-Residential Outdoor: 647,250; Striped Parking Area: 141,144 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,507.00	598.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	301.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7568	0.0000	0.7568	0.3889	0.0000	0.3889	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1024	1.0597	0.7024	1.4700e-003		0.0487	0.0487		0.0448	0.0448	0.0000	128.7852	128.7852	0.0417	0.0000	129.8265
<b>Total</b>	<b>0.1024</b>	<b>1.0597</b>	<b>0.7024</b>	<b>1.4700e-003</b>	<b>0.7568</b>	<b>0.0487</b>	<b>0.8055</b>	<b>0.3889</b>	<b>0.0448</b>	<b>0.4338</b>	<b>0.0000</b>	<b>128.7852</b>	<b>128.7852</b>	<b>0.0417</b>	<b>0.0000</b>	<b>129.8265</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.2400e-003	1.7300e-003	0.0237	7.0000e-005	8.0200e-003	5.0000e-005	8.0600e-003	2.1300e-003	4.0000e-005	2.1700e-003	0.0000	6.3459	6.3459	1.6000e-004	1.6000e-004	6.3973
<b>Total</b>	<b>2.2400e-003</b>	<b>1.7300e-003</b>	<b>0.0237</b>	<b>7.0000e-005</b>	<b>8.0200e-003</b>	<b>5.0000e-005</b>	<b>8.0600e-003</b>	<b>2.1300e-003</b>	<b>4.0000e-005</b>	<b>2.1700e-003</b>	<b>0.0000</b>	<b>6.3459</b>	<b>6.3459</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>6.3973</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	tons/yr										MT/yr					
Fugitive Dust					0.3406	0.0000	0.3406	0.1750	0.0000	0.1750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0359	0.7340	0.8840	1.4700e-003		5.4600e-003	5.4600e-003		5.4600e-003	5.4600e-003	0.0000	128.7850	128.7850	0.0417	0.0000	129.8263
<b>Total</b>	<b>0.0359</b>	<b>0.7340</b>	<b>0.8840</b>	<b>1.4700e-003</b>	<b>0.3406</b>	<b>5.4600e-003</b>	<b>0.3460</b>	<b>0.1750</b>	<b>5.4600e-003</b>	<b>0.1805</b>	<b>0.0000</b>	<b>128.7850</b>	<b>128.7850</b>	<b>0.0417</b>	<b>0.0000</b>	<b>129.8263</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.2400e-003	1.7300e-003	0.0237	7.0000e-005	8.0200e-003	5.0000e-005	8.0600e-003	2.1300e-003	4.0000e-005	2.1700e-003	0.0000	6.3459	6.3459	1.6000e-004	1.6000e-004	6.3973
<b>Total</b>	<b>2.2400e-003</b>	<b>1.7300e-003</b>	<b>0.0237</b>	<b>7.0000e-005</b>	<b>8.0200e-003</b>	<b>5.0000e-005</b>	<b>8.0600e-003</b>	<b>2.1300e-003</b>	<b>4.0000e-005</b>	<b>2.1700e-003</b>	<b>0.0000</b>	<b>6.3459</b>	<b>6.3459</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>6.3973</b>

**3.3 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4556	0.0000	0.4556	0.1809	0.0000	0.1809	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1644	1.7085	1.3885	3.0700e-003		0.0705	0.0705		0.0649	0.0649	0.0000	269.9493	269.9493	0.0873	0.0000	272.1320
<b>Total</b>	<b>0.1644</b>	<b>1.7085</b>	<b>1.3885</b>	<b>3.0700e-003</b>	<b>0.4556</b>	<b>0.0705</b>	<b>0.5261</b>	<b>0.1809</b>	<b>0.0649</b>	<b>0.2457</b>	<b>0.0000</b>	<b>269.9493</b>	<b>269.9493</b>	<b>0.0873</b>	<b>0.0000</b>	<b>272.1320</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1900e-003	2.4800e-003	0.0339	1.0000e-004	0.0115	7.0000e-005	0.0115	3.0400e-003	6.0000e-005	3.1000e-003	0.0000	9.0655	9.0655	2.2000e-004	2.3000e-004	9.1390
<b>Total</b>	<b>3.1900e-003</b>	<b>2.4800e-003</b>	<b>0.0339</b>	<b>1.0000e-004</b>	<b>0.0115</b>	<b>7.0000e-005</b>	<b>0.0115</b>	<b>3.0400e-003</b>	<b>6.0000e-005</b>	<b>3.1000e-003</b>	<b>0.0000</b>	<b>9.0655</b>	<b>9.0655</b>	<b>2.2000e-004</b>	<b>2.3000e-004</b>	<b>9.1390</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	tons/yr										MT/yr					
Fugitive Dust					0.2050	0.0000	0.2050	0.0814	0.0000	0.0814	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0754	1.4839	1.8178	3.0700e-003		9.6500e-003	9.6500e-003		9.6500e-003	9.6500e-003	0.0000	269.9490	269.9490	0.0873	0.0000	272.1316
<b>Total</b>	<b>0.0754</b>	<b>1.4839</b>	<b>1.8178</b>	<b>3.0700e-003</b>	<b>0.2050</b>	<b>9.6500e-003</b>	<b>0.2147</b>	<b>0.0814</b>	<b>9.6500e-003</b>	<b>0.0910</b>	<b>0.0000</b>	<b>269.9490</b>	<b>269.9490</b>	<b>0.0873</b>	<b>0.0000</b>	<b>272.1316</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1900e-003	2.4800e-003	0.0339	1.0000e-004	0.0115	7.0000e-005	0.0115	3.0400e-003	6.0000e-005	3.1000e-003	0.0000	9.0655	9.0655	2.2000e-004	2.3000e-004	9.1390
<b>Total</b>	<b>3.1900e-003</b>	<b>2.4800e-003</b>	<b>0.0339</b>	<b>1.0000e-004</b>	<b>0.0115</b>	<b>7.0000e-005</b>	<b>0.0115</b>	<b>3.0400e-003</b>	<b>6.0000e-005</b>	<b>3.1000e-003</b>	<b>0.0000</b>	<b>9.0655</b>	<b>9.0655</b>	<b>2.2000e-004</b>	<b>2.3000e-004</b>	<b>9.1390</b>

**3.4 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0149	0.1367	0.1543	2.6000e-004		6.6500e-003	6.6500e-003		6.2600e-003	6.2600e-003	0.0000	22.0215	22.0215	5.2400e-003	0.0000	22.1524
<b>Total</b>	<b>0.0149</b>	<b>0.1367</b>	<b>0.1543</b>	<b>2.6000e-004</b>		<b>6.6500e-003</b>	<b>6.6500e-003</b>		<b>6.2600e-003</b>	<b>6.2600e-003</b>	<b>0.0000</b>	<b>22.0215</b>	<b>22.0215</b>	<b>5.2400e-003</b>	<b>0.0000</b>	<b>22.1524</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	6.1400e-003	0.2164	0.0824	1.0300e-003	0.0358	1.2000e-003	0.0370	0.0103	1.1500e-003	0.0115	0.0000	101.1057	101.1057	3.3900e-003	0.0147	105.5559
Worker	0.0462	0.0358	0.4900	1.4100e-003	0.1656	9.5000e-004	0.1666	0.0440	8.7000e-004	0.0449	0.0000	131.0975	131.0975	3.2500e-003	3.2900e-003	132.1600
<b>Total</b>	<b>0.0523</b>	<b>0.2523</b>	<b>0.5724</b>	<b>2.4400e-003</b>	<b>0.2014</b>	<b>2.1500e-003</b>	<b>0.2036</b>	<b>0.0543</b>	<b>2.0200e-003</b>	<b>0.0563</b>	<b>0.0000</b>	<b>232.2032</b>	<b>232.2032</b>	<b>6.6400e-003</b>	<b>0.0179</b>	<b>237.7159</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	tons/yr										MT/yr					
Off-Road	7.8100e-003	0.1326	0.1715	2.6000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	22.0214	22.0214	5.2400e-003	0.0000	22.1524
<b>Total</b>	<b>7.8100e-003</b>	<b>0.1326</b>	<b>0.1715</b>	<b>2.6000e-004</b>		<b>1.6700e-003</b>	<b>1.6700e-003</b>		<b>1.6700e-003</b>	<b>1.6700e-003</b>	<b>0.0000</b>	<b>22.0214</b>	<b>22.0214</b>	<b>5.2400e-003</b>	<b>0.0000</b>	<b>22.1524</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	6.1400e-003	0.2164	0.0824	1.0300e-003	0.0358	1.2000e-003	0.0370	0.0103	1.1500e-003	0.0115	0.0000	101.1057	101.1057	3.3900e-003	0.0147	105.5559
Worker	0.0462	0.0358	0.4900	1.4100e-003	0.1656	9.5000e-004	0.1666	0.0440	8.7000e-004	0.0449	0.0000	131.0975	131.0975	3.2500e-003	3.2900e-003	132.1600
<b>Total</b>	<b>0.0523</b>	<b>0.2523</b>	<b>0.5724</b>	<b>2.4400e-003</b>	<b>0.2014</b>	<b>2.1500e-003</b>	<b>0.2036</b>	<b>0.0543</b>	<b>2.0200e-003</b>	<b>0.0563</b>	<b>0.0000</b>	<b>232.2032</b>	<b>232.2032</b>	<b>6.6400e-003</b>	<b>0.0179</b>	<b>237.7159</b>

**3.4 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
<b>Total</b>	<b>0.1928</b>	<b>1.7611</b>	<b>2.1179</b>	<b>3.5300e-003</b>		<b>0.0803</b>	<b>0.0803</b>		<b>0.0756</b>	<b>0.0756</b>	<b>0.0000</b>	<b>303.7223</b>	<b>303.7223</b>	<b>0.0718</b>	<b>0.0000</b>	<b>305.5179</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0826	2.9980	1.1176	0.0141	0.4940	0.0166	0.5107	0.1426	0.0159	0.1585	0.0000	1,374.1546	1,374.1546	0.0467	0.1994	1,434.7390
Worker	0.5955	0.4412	6.3038	0.0189	2.2837	0.0125	2.2962	0.6065	0.0115	0.6180	0.0000	1,768.9261	1,768.9261	0.0406	0.0422	1,782.5282
<b>Total</b>	<b>0.6781</b>	<b>3.4392</b>	<b>7.4213</b>	<b>0.0330</b>	<b>2.7777</b>	<b>0.0291</b>	<b>2.8069</b>	<b>0.7490</b>	<b>0.0274</b>	<b>0.7765</b>	<b>0.0000</b>	<b>3,143.0807</b>	<b>3,143.0807</b>	<b>0.0873</b>	<b>0.2416</b>	<b>3,217.2671</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	tons/yr										MT/yr					
Off-Road	0.1053	1.8231	2.3633	3.5300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
<b>Total</b>	<b>0.1053</b>	<b>1.8231</b>	<b>2.3633</b>	<b>3.5300e-003</b>		<b>0.0220</b>	<b>0.0220</b>		<b>0.0220</b>	<b>0.0220</b>	<b>0.0000</b>	<b>303.7220</b>	<b>303.7220</b>	<b>0.0718</b>	<b>0.0000</b>	<b>305.5175</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0826	2.9980	1.1176	0.0141	0.4940	0.0166	0.5107	0.1426	0.0159	0.1585	0.0000	1,374.1546	1,374.1546	0.0467	0.1994	1,434.7390
Worker	0.5955	0.4412	6.3038	0.0189	2.2837	0.0125	2.2962	0.6065	0.0115	0.6180	0.0000	1,768.9261	1,768.9261	0.0406	0.0422	1,782.5282
<b>Total</b>	<b>0.6781</b>	<b>3.4392</b>	<b>7.4213</b>	<b>0.0330</b>	<b>2.7777</b>	<b>0.0291</b>	<b>2.8069</b>	<b>0.7490</b>	<b>0.0274</b>	<b>0.7765</b>	<b>0.0000</b>	<b>3,143.0807</b>	<b>3,143.0807</b>	<b>0.0873</b>	<b>0.2416</b>	<b>3,217.2671</b>

**3.4 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0670	0.6110	0.7882	1.3200e-003		0.0259	0.0259		0.0243	0.0243	0.0000	113.6405	113.6405	0.0267	0.0000	114.3084
<b>Total</b>	<b>0.0670</b>	<b>0.6110</b>	<b>0.7882</b>	<b>1.3200e-003</b>		<b>0.0259</b>	<b>0.0259</b>		<b>0.0243</b>	<b>0.0243</b>	<b>0.0000</b>	<b>113.6405</b>	<b>113.6405</b>	<b>0.0267</b>	<b>0.0000</b>	<b>114.3084</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0302	1.1160	0.4118	5.1600e-003	0.1848	6.2400e-003	0.1910	0.0533	5.9700e-003	0.0593	0.0000	504.6342	504.6342	0.0175	0.0733	526.9159
Worker	0.2089	0.1483	2.2018	6.8300e-003	0.8542	4.4600e-003	0.8587	0.2269	4.1100e-003	0.2310	0.0000	645.4901	645.4901	0.0137	0.0148	650.2328
<b>Total</b>	<b>0.2391</b>	<b>1.2643</b>	<b>2.6136</b>	<b>0.0120</b>	<b>1.0390</b>	<b>0.0107</b>	<b>1.0497</b>	<b>0.2802</b>	<b>0.0101</b>	<b>0.2903</b>	<b>0.0000</b>	<b>1,150.1243</b>	<b>1,150.1243</b>	<b>0.0312</b>	<b>0.0881</b>	<b>1,177.1487</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	tons/yr										MT/yr					
Off-Road	0.0386	0.6800	0.8834	1.3200e-003		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	113.6404	113.6404	0.0267	0.0000	114.3082
<b>Total</b>	<b>0.0386</b>	<b>0.6800</b>	<b>0.8834</b>	<b>1.3200e-003</b>		<b>7.8900e-003</b>	<b>7.8900e-003</b>		<b>7.8900e-003</b>	<b>7.8900e-003</b>	<b>0.0000</b>	<b>113.6404</b>	<b>113.6404</b>	<b>0.0267</b>	<b>0.0000</b>	<b>114.3082</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0302	1.1160	0.4118	5.1600e-003	0.1848	6.2400e-003	0.1910	0.0533	5.9700e-003	0.0593	0.0000	504.6342	504.6342	0.0175	0.0733	526.9159
Worker	0.2089	0.1483	2.2018	6.8300e-003	0.8542	4.4600e-003	0.8587	0.2269	4.1100e-003	0.2310	0.0000	645.4901	645.4901	0.0137	0.0148	650.2328
<b>Total</b>	<b>0.2391</b>	<b>1.2643</b>	<b>2.6136</b>	<b>0.0120</b>	<b>1.0390</b>	<b>0.0107</b>	<b>1.0497</b>	<b>0.2802</b>	<b>0.0101</b>	<b>0.2903</b>	<b>0.0000</b>	<b>1,150.1243</b>	<b>1,150.1243</b>	<b>0.0312</b>	<b>0.0881</b>	<b>1,177.1487</b>

**3.5 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0481	0.4505	0.7653	1.2000e-003		0.0220	0.0220		0.0202	0.0202	0.0000	105.1011	105.1011	0.0340	0.0000	105.9509
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0481</b>	<b>0.4505</b>	<b>0.7653</b>	<b>1.2000e-003</b>		<b>0.0220</b>	<b>0.0220</b>		<b>0.0202</b>	<b>0.0202</b>	<b>0.0000</b>	<b>105.1011</b>	<b>105.1011</b>	<b>0.0340</b>	<b>0.0000</b>	<b>105.9509</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.2300e-003	1.5800e-003	0.0235	7.0000e-005	9.1100e-003	5.0000e-005	9.1600e-003	2.4200e-003	4.0000e-005	2.4600e-003	0.0000	6.8838	6.8838	1.5000e-004	1.6000e-004	6.9344
<b>Total</b>	<b>2.2300e-003</b>	<b>1.5800e-003</b>	<b>0.0235</b>	<b>7.0000e-005</b>	<b>9.1100e-003</b>	<b>5.0000e-005</b>	<b>9.1600e-003</b>	<b>2.4200e-003</b>	<b>4.0000e-005</b>	<b>2.4600e-003</b>	<b>0.0000</b>	<b>6.8838</b>	<b>6.8838</b>	<b>1.5000e-004</b>	<b>1.6000e-004</b>	<b>6.9344</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	tons/yr										MT/yr					
Off-Road	0.0295	0.5930	0.9080	1.2000e-003		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	105.1010	105.1010	0.0340	0.0000	105.9508
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0295</b>	<b>0.5930</b>	<b>0.9080</b>	<b>1.2000e-003</b>		<b>4.8000e-003</b>	<b>4.8000e-003</b>		<b>4.8000e-003</b>	<b>4.8000e-003</b>	<b>0.0000</b>	<b>105.1010</b>	<b>105.1010</b>	<b>0.0340</b>	<b>0.0000</b>	<b>105.9508</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.2300e-003	1.5800e-003	0.0235	7.0000e-005	9.1100e-003	5.0000e-005	9.1600e-003	2.4200e-003	4.0000e-005	2.4600e-003	0.0000	6.8838	6.8838	1.5000e-004	1.6000e-004	6.9344
<b>Total</b>	<b>2.2300e-003</b>	<b>1.5800e-003</b>	<b>0.0235</b>	<b>7.0000e-005</b>	<b>9.1100e-003</b>	<b>5.0000e-005</b>	<b>9.1600e-003</b>	<b>2.4200e-003</b>	<b>4.0000e-005</b>	<b>2.4600e-003</b>	<b>0.0000</b>	<b>6.8838</b>	<b>6.8838</b>	<b>1.5000e-004</b>	<b>1.6000e-004</b>	<b>6.9344</b>

**3.6 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6110					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3200e-003	0.0561	0.0833	1.4000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003	0.0000	11.7450	11.7450	6.6000e-004	0.0000	11.7615
<b>Total</b>	<b>1.6193</b>	<b>0.0561</b>	<b>0.0833</b>	<b>1.4000e-004</b>		<b>2.8000e-003</b>	<b>2.8000e-003</b>		<b>2.8000e-003</b>	<b>2.8000e-003</b>	<b>0.0000</b>	<b>11.7450</b>	<b>11.7450</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>11.7615</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0309	0.4421	1.3300e-003	0.1602	8.8000e-004	0.1611	0.0425	8.1000e-004	0.0433	0.0000	124.0651	124.0651	2.8400e-003	2.9600e-003	125.0190
<b>Total</b>	<b>0.0418</b>	<b>0.0309</b>	<b>0.4421</b>	<b>1.3300e-003</b>	<b>0.1602</b>	<b>8.8000e-004</b>	<b>0.1611</b>	<b>0.0425</b>	<b>8.1000e-004</b>	<b>0.0433</b>	<b>0.0000</b>	<b>124.0651</b>	<b>124.0651</b>	<b>2.8400e-003</b>	<b>2.9600e-003</b>	<b>125.0190</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	tons/yr										MT/yr					
Archit. Coating	1.6110					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7300e-003	0.0624	0.0843	1.4000e-004		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	11.7450	11.7450	6.6000e-004	0.0000	11.7615
<b>Total</b>	<b>1.6138</b>	<b>0.0624</b>	<b>0.0843</b>	<b>1.4000e-004</b>		<b>6.6000e-004</b>	<b>6.6000e-004</b>		<b>6.6000e-004</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>11.7450</b>	<b>11.7450</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>11.7615</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0309	0.4421	1.3300e-003	0.1602	8.8000e-004	0.1611	0.0425	8.1000e-004	0.0433	0.0000	124.0651	124.0651	2.8400e-003	2.9600e-003	125.0190
<b>Total</b>	<b>0.0418</b>	<b>0.0309</b>	<b>0.4421</b>	<b>1.3300e-003</b>	<b>0.1602</b>	<b>8.8000e-004</b>	<b>0.1611</b>	<b>0.0425</b>	<b>8.1000e-004</b>	<b>0.0433</b>	<b>0.0000</b>	<b>124.0651</b>	<b>124.0651</b>	<b>2.8400e-003</b>	<b>2.9600e-003</b>	<b>125.0190</b>

**3.6 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3700e-003	0.0561	0.0887	1.5000e-004		2.5200e-003	2.5200e-003		2.5200e-003	2.5200e-003	0.0000	12.5109	12.5109	6.8000e-004	0.0000	12.5280
<b>Total</b>	<b>1.7245</b>	<b>0.0561</b>	<b>0.0887</b>	<b>1.5000e-004</b>		<b>2.5200e-003</b>	<b>2.5200e-003</b>		<b>2.5200e-003</b>	<b>2.5200e-003</b>	<b>0.0000</b>	<b>12.5109</b>	<b>12.5109</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>12.5280</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0417	0.0296	0.4398	1.3600e-003	0.1706	8.9000e-004	0.1715	0.0453	8.2000e-004	0.0461	0.0000	128.9267	128.9267	2.7400e-003	2.9500e-003	129.8740
<b>Total</b>	<b>0.0417</b>	<b>0.0296</b>	<b>0.4398</b>	<b>1.3600e-003</b>	<b>0.1706</b>	<b>8.9000e-004</b>	<b>0.1715</b>	<b>0.0453</b>	<b>8.2000e-004</b>	<b>0.0461</b>	<b>0.0000</b>	<b>128.9267</b>	<b>128.9267</b>	<b>2.7400e-003</b>	<b>2.9500e-003</b>	<b>129.8740</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	tons/yr										MT/yr					
Archit. Coating	1.7161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9100e-003	0.0665	0.0898	1.5000e-004		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	12.5109	12.5109	6.8000e-004	0.0000	12.5280
<b>Total</b>	<b>1.7190</b>	<b>0.0665</b>	<b>0.0898</b>	<b>1.5000e-004</b>		<b>7.0000e-004</b>	<b>7.0000e-004</b>		<b>7.0000e-004</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>12.5109</b>	<b>12.5109</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>12.5280</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0417	0.0296	0.4398	1.3600e-003	0.1706	8.9000e-004	0.1715	0.0453	8.2000e-004	0.0461	0.0000	128.9267	128.9267	2.7400e-003	2.9500e-003	129.8740
<b>Total</b>	<b>0.0417</b>	<b>0.0296</b>	<b>0.4398</b>	<b>1.3600e-003</b>	<b>0.1706</b>	<b>8.9000e-004</b>	<b>0.1715</b>	<b>0.0453</b>	<b>8.2000e-004</b>	<b>0.0461</b>	<b>0.0000</b>	<b>128.9267</b>	<b>128.9267</b>	<b>2.7400e-003</b>	<b>2.9500e-003</b>	<b>129.8740</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive 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	3.6677	4.5041	38.9773	0.0897	9.9239	0.0652	9.9891	2.6485	0.0607	2.7091	0.0000	8,506.3275	8,506.3275	0.5204	0.3605	8,626.7764
Unmitigated	3.6677	4.5041	38.9773	0.0897	9.9239	0.0652	9.9891	2.6485	0.0607	2.7091	0.0000	8,506.3275	8,506.3275	0.5204	0.3605	8,626.7764

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,961.40	1,961.40	1,961.40	6,318,574	6,318,574
Industrial Park	2,683.70	2,683.70	2,683.70	10,672,770	10,672,770
Industrial Park	2,237.20	2,237.20	2,237.20	8,897,091	8,897,091
Office Park	139.52	139.52	139.52	471,383	471,383
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>7,021.82</b>	<b>7,021.82</b>	<b>7,021.82</b>	<b>26,359,817</b>	<b>26,359,817</b>

**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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	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
Automobile Care Center	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Enclosed Parking with Elevator	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
General Office Building	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Industrial Park	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Office Park	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Other Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Parking Lot	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Unenclosed Parking with Elevator	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive 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	1,474.1280	1,474.1280	0.1244	0.0151	1,481.7328
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,474.1280	1,474.1280	0.1244	0.0151	1,481.7328
Natural Gas Mitigated	0.0207	0.1886	0.1584	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	205.2904	205.2904	3.9300e-003	3.7600e-003	206.5104
Natural Gas Unmitigated	0.0207	0.1886	0.1584	1.1300e-003		0.0143	0.0143		0.0143	0.0143	0.0000	205.2904	205.2904	3.9300e-003	3.7600e-003	206.5104



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
Automobile Care Center	19684	1.1000e-004	9.6000e-004	8.1000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0504	1.0504	2.0000e-005	2.0000e-005	1.0567
Enclosed Parking with Elevator	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
General Office Building	623700	3.3600e-003	0.0306	0.0257	1.8000e-004		2.3200e-003	2.3200e-003		2.3200e-003	2.3200e-003	0.0000	33.2830	33.2830	6.4000e-004	6.1000e-004	33.4808
Industrial Park	1.41372e+006	7.6200e-003	0.0693	0.0582	4.2000e-004		5.2700e-003	5.2700e-003		5.2700e-003	5.2700e-003	0.0000	75.4415	75.4415	1.4500e-003	1.3800e-003	75.8898
Industrial Park	1.69587e+006	9.1400e-003	0.0831	0.0698	5.0000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	90.4981	90.4981	1.7300e-003	1.6600e-003	91.0359
Office Park	94023	5.1000e-004	4.6100e-003	3.8700e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0174	5.0174	1.0000e-004	9.0000e-005	5.0472
Other Asphalt Surfaces	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
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
Unenclosed Parking with Elevator	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
<b>Total</b>		<b>0.0207</b>	<b>0.1886</b>	<b>0.1584</b>	<b>1.1400e-003</b>		<b>0.0143</b>	<b>0.0143</b>		<b>0.0143</b>	<b>0.0143</b>	<b>0.0000</b>	<b>205.2904</b>	<b>205.2904</b>	<b>3.9400e-003</b>	<b>3.7600e-003</b>	<b>206.5104</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	tons/yr										MT/yr					
Automobile Care Center	19684	1.1000e-004	9.6000e-004	8.1000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0504	1.0504	2.0000e-005	2.0000e-005	1.0567
Enclosed Parking with Elevator	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
General Office Building	623700	3.3600e-003	0.0306	0.0257	1.8000e-004		2.3200e-003	2.3200e-003		2.3200e-003	2.3200e-003	0.0000	33.2830	33.2830	6.4000e-004	6.1000e-004	33.4808
Industrial Park	1.41372e+006	7.6200e-003	0.0693	0.0582	4.2000e-004		5.2700e-003	5.2700e-003		5.2700e-003	5.2700e-003	0.0000	75.4415	75.4415	1.4500e-003	1.3800e-003	75.8898
Industrial Park	1.69587e+006	9.1400e-003	0.0831	0.0698	5.0000e-004		6.3200e-003	6.3200e-003		6.3200e-003	6.3200e-003	0.0000	90.4981	90.4981	1.7300e-003	1.6600e-003	91.0359
Office Park	94023	5.1000e-004	4.6100e-003	3.8700e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0174	5.0174	1.0000e-004	9.0000e-005	5.0472
Other Asphalt Surfaces	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
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
Unenclosed Parking with Elevator	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
<b>Total</b>		<b>0.0207</b>	<b>0.1886</b>	<b>0.1584</b>	<b>1.1400e-003</b>		<b>0.0143</b>	<b>0.0143</b>		<b>0.0143</b>	<b>0.0143</b>	<b>0.0000</b>	<b>205.2904</b>	<b>205.2904</b>	<b>3.9400e-003</b>	<b>3.7600e-003</b>	<b>206.5104</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	18240	3.2348	2.7000e-004	3.0000e-005	3.2515
Enclosed Parking with Elevator	933991	165.6392	0.0140	1.6900e-003	166.4937
General Office Building	1.1613e+006	205.9514	0.0174	2.1100e-003	207.0139
Industrial Park	2.63228e+006	466.8231	0.0394	4.7800e-003	469.2314
Industrial Park	3.15763e+006	559.9916	0.0473	5.7300e-003	562.8805
Office Park	201526	35.7397	3.0200e-003	3.7000e-004	35.9241
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	123232	21.8547	1.8400e-003	2.2000e-004	21.9674
Unenclosed Parking with Elevator	83980	14.8935	1.2600e-003	1.5000e-004	14.9703
<b>Total</b>		<b>1,474.1280</b>	<b>0.1244</b>	<b>0.0151</b>	<b>1,481.7328</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	18240	3.2348	2.7000e-004	3.0000e-005	3.2515
Enclosed Parking with Elevator	933991	165.6392	0.0140	1.6900e-003	166.4937
General Office Building	1.1613e+006	205.9514	0.0174	2.1100e-003	207.0139
Industrial Park	2.63228e+006	466.8231	0.0394	4.7800e-003	469.2314
Industrial Park	3.15763e+006	559.9916	0.0473	5.7300e-003	562.8805
Office Park	201526	35.7397	3.0200e-003	3.7000e-004	35.9241
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	123232	21.8547	1.8400e-003	2.2000e-004	21.9674
Unenclosed Parking with Elevator	83980	14.8935	1.2600e-003	1.5000e-004	14.9703
<b>Total</b>		<b>1,474.1280</b>	<b>0.1244</b>	<b>0.0151</b>	<b>1,481.7328</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive 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	5.1692	6.7000e-004	0.0735	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1433	0.1433	3.7000e-004	0.0000	0.1526
Unmitigated	5.1692	6.7000e-004	0.0735	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1433	0.1433	3.7000e-004	0.0000	0.1526

**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	0.3327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8297					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.7700e-003	6.7000e-004	0.0735	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1433	0.1433	3.7000e-004	0.0000	0.1526
<b>Total</b>	<b>5.1692</b>	<b>6.7000e-004</b>	<b>0.0735</b>	<b>1.0000e-005</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.1433</b>	<b>0.1433</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>0.1526</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.3327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8297					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.7700e-003	6.7000e-004	0.0735	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1433	0.1433	3.7000e-004	0.0000	0.1526
<b>Total</b>	<b>5.1692</b>	<b>6.7000e-004</b>	<b>0.0735</b>	<b>1.0000e-005</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.1433</b>	<b>0.1433</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>0.1526</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.9963	5.8300e-003	3.2700e-003	12.1180
Unmitigated	10.9963	5.8300e-003	3.2700e-003	12.1180

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.12928 / 0	10.9963	5.8300e-003	3.2700e-003	12.1180
Industrial Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>10.9963</b>	<b>5.8300e-003</b>	<b>3.2700e-003</b>	<b>12.1180</b>



Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.12928 / 0	10.9963	5.8300e-003	3.2700e-003	12.1180
Industrial Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>10.9963</b>	<b>5.8300e-003</b>	<b>3.2700e-003</b>	<b>12.1180</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	312.4924	18.4678	0.0000	774.1867
Unmitigated	312.4924	18.4678	0.0000	774.1867

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	14.52	2.9474	0.1742	0.0000	7.3021
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	195.3	39.6441	2.3429	0.0000	98.2167
Industrial Park	1298.28	263.5391	15.5747	0.0000	652.9070
Office Park	31.34	6.3617	0.3760	0.0000	15.7609
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>312.4924</b>	<b>18.4678</b>	<b>0.0000</b>	<b>774.1867</b>

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	14.52	2.9474	0.1742	0.0000	7.3021
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	195.3	39.6441	2.3429	0.0000	98.2167
Industrial Park	1298.28	263.5391	15.5747	0.0000	652.9070
Office Park	31.34	6.3617	0.3760	0.0000	15.7609
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>312.4924</b>	<b>18.4678</b>	<b>0.0000</b>	<b>774.1867</b>

**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**

Fire Pumps and Emergency Generators

Blackhall Studios AQ with Tier 3 engines - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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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Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Blackhall Generator and Food Truck Emissions**

**South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant w/o Drive Thru	1.40	1000sqft	0.03	1,400.00	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>	9			<b>Operational Year</b>	2024
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics - Determine emissions from the operation of a generator and food trucks for the Proejct Site Only.

Land Use - Land use used to provide approximate waste defaults only. Assumes 200 sqft per truck

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Phase - Used to model Generator use to get appropriate Tier 3 emission factors through mitigation.

Off-road Equipment - Assumes 20 minutes per month per generator for up to 54 hours per year. Assumes all 7 generators are tested in one day.

Architectural Coating - no building construction, generator operation only

Vehicle Trips - Trucks trips assumed in primary modeling. No new truck trips assumed.

Area Coating - no new building

Landscape Equipment - no landscaping

Energy Use - No Natural Gas Usage

Solid Waste - waste assumed in original operational modeling.

Consumer Products -

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Water And Wastewater - No water usage

Construction Off-road Equipment Mitigation - Tier 3 engines used. "Mitigated" scenario is the actual project emissions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	700.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,100.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	PhaseEndDate	2/9/2023	1/1/2024
tblConstructionPhase	PhaseStartDate	2/3/2023	1/1/2024
tblEnergyUse	LightingElect	7.87	0.00
tblEnergyUse	NT24E	28.16	0.00
tblEnergyUse	NT24NG	187.78	0.00
tblEnergyUse	T24E	7.24	122.00
tblEnergyUse	T24NG	42.55	0.00
tblLandscapeEquipment	NumberSummerDays	250	0
tblOffRoadEquipment	HorsePower	84.00	227.00
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	WD_TR	346.23	0.00
tblWater	IndoorWaterUseRate	424,947.20	0.00
tblWater	OutdoorWaterUseRate	27,124.29	0.00

**2.0 Emissions Summary**





Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
4	11-3-2023	2-2-2024	0.0004	0.0008
		Highest	0.0004	0.0008

**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	5.0600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	30.2906	30.2906	2.5600e-003	3.1000e-004	30.4469
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	3.2742	0.0000	3.2742	0.1935	0.0000	8.1118
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.2742</b>	<b>30.2906</b>	<b>33.5649</b>	<b>0.1961</b>	<b>3.1000e-004</b>	<b>38.5587</b>

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	5.0600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	30.2906	30.2906	2.5600e-003	3.1000e-004	30.4469
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	3.2742	0.0000	3.2742	0.1935	0.0000	8.1118
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.2742</b>	<b>30.2906</b>	<b>33.5649</b>	<b>0.1961</b>	<b>3.1000e-004</b>	<b>38.5587</b>

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

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/1/2024	1/1/2024	5	1	

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

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Generator Sets	7	0.34	227	0.74

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment





Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721







Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	170800	30.2906	2.5600e-003	3.1000e-004	30.4469
<b>Total</b>		<b>30.2906</b>	<b>2.5600e-003</b>	<b>3.1000e-004</b>	<b>30.4469</b>

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	170800	30.2906	2.5600e-003	3.1000e-004	30.4469
<b>Total</b>		<b>30.2906</b>	<b>2.5600e-003</b>	<b>3.1000e-004</b>	<b>30.4469</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.2742	0.1935	0.0000	8.1118
Unmitigated	3.2742	0.1935	0.0000	8.1118

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	16.13	3.2742	0.1935	0.0000	8.1118
<b>Total</b>		<b>3.2742</b>	<b>0.1935</b>	<b>0.0000</b>	<b>8.1118</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	16.13	3.2742	0.1935	0.0000	8.1118
<b>Total</b>		<b>3.2742</b>	<b>0.1935</b>	<b>0.0000</b>	<b>8.1118</b>

**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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Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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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Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Blackhall Generator and Food Truck Emissions**

**South Coast AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant w/o Drive Thru	1.40	1000sqft	0.03	1,400.00	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>	9			<b>Operational Year</b>	2024
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics - Determine emissions from the operation of a generator and food trucks for the Proejct Site Only.

Land Use - Land use used to provide approximate waste defaults only. Assumes 200 sqft per truck

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Phase - Used to model Generator use to get appropriate Tier 3 emission factors through mitigation.

Off-road Equipment - Assumes 20 minutes per month per generator for up to 54 hours per year. Assumes all 7 generators are tested in one day.

Architectural Coating - no building construction, generator operation only

Vehicle Trips - Trucks trips assumed in primary modeling. No new truck trips assumed.

Area Coating - no new building

Landscape Equipment - no landscaping

Energy Use - No Natural Gas Usage

Solid Waste - waste assumed in original operational modeling.

Consumer Products -



Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Water And Wastewater - No water usage

Construction Off-road Equipment Mitigation - Tier 3 engines used. "Mitigated" scenario is the actual project emissions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	700.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,100.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	PhaseEndDate	2/9/2023	1/1/2024
tblConstructionPhase	PhaseStartDate	2/3/2023	1/1/2024
tblEnergyUse	LightingElect	7.87	0.00
tblEnergyUse	NT24E	28.16	0.00
tblEnergyUse	NT24NG	187.78	0.00
tblEnergyUse	T24E	7.24	122.00
tblEnergyUse	T24NG	42.55	0.00
tblLandscapeEquipment	NumberSummerDays	250	0
tblOffRoadEquipment	HorsePower	84.00	227.00
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	WD_TR	346.23	0.00
tblWater	IndoorWaterUseRate	424,947.20	0.00
tblWater	OutdoorWaterUseRate	27,124.29	0.00

**2.0 Emissions Summary**



Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.3000e-004</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	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.3000e-004</b>

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	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	Architectural Coating	Architectural Coating	1/1/2024	1/1/2024	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Generator Sets	7	0.34	227	0.74

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1366	1.0304	0.8840	5.2900e-003		0.0291	0.0291		0.0291	0.0291		500.8938	500.8938	0.0123		501.2023
<b>Total</b>	<b>0.1366</b>	<b>1.0304</b>	<b>0.8840</b>	<b>5.2900e-003</b>		<b>0.0291</b>	<b>0.0291</b>		<b>0.0291</b>	<b>0.0291</b>		<b>500.8938</b>	<b>500.8938</b>	<b>0.0123</b>		<b>501.2023</b>

**Unmitigated Construction Off-Site**

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

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Architectural Coating - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1058	2.0448	2.2916	5.2900e-003		0.0776	0.0776		0.0776	0.0776	0.0000	500.8938	500.8938	0.0123		501.2023
<b>Total</b>	<b>0.1058</b>	<b>2.0448</b>	<b>2.2916</b>	<b>5.2900e-003</b>		<b>0.0776</b>	<b>0.0776</b>		<b>0.0776</b>	<b>0.0776</b>	<b>0.0000</b>	<b>500.8938</b>	<b>500.8938</b>	<b>0.0123</b>		<b>501.2023</b>

**Mitigated Construction Off-Site**

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

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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					
Fast Food Restaurant w/o Drive Thru	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</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	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
Unmitigated	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>		<b>3.3000e-004</b>

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>		<b>3.3000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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
----------------	--------	-----------	-----------	-------------	-------------	-----------

**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
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Blackhall Generator and Food Truck Emissions**

**South Coast AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant w/o Drive Thru	1.40	1000sqft	0.03	1,400.00	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>	9	<b>Operational Year</b>	2024		
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics - Determine emissions from the operation of a generator and food trucks for the Proejct Site Only.

Land Use - Land use used to provide approximate waste defaults only. Assumes 200 sqft per truck

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Phase - Used to model Generator use to get appropriate Tier 3 emission factors through mitigation.

Off-road Equipment - Assumes 20 minutes per month per generator for up to 54 hours per year. Assumes all 7 generators are tested in one day.

Architectural Coating - no building construction, generator operation only

Vehicle Trips - Trucks trips assumed in primary modeling. No new truck trips assumed.

Area Coating - no new building

Landscape Equipment - no landscaping

Energy Use - No Natural Gas Usage

Solid Waste - waste assumed in original operational modeling.

Consumer Products -

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Water And Wastewater - No water usage

Construction Off-road Equipment Mitigation - Tier 3 engines used. "Mitigated" scenario is the actual project emissions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	700.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,100.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	PhaseEndDate	2/9/2023	1/1/2024
tblConstructionPhase	PhaseStartDate	2/3/2023	1/1/2024
tblEnergyUse	LightingElect	7.87	0.00
tblEnergyUse	NT24E	28.16	0.00
tblEnergyUse	NT24NG	187.78	0.00
tblEnergyUse	T24E	7.24	122.00
tblEnergyUse	T24NG	42.55	0.00
tblLandscapeEquipment	NumberSummerDays	250	0
tblOffRoadEquipment	HorsePower	84.00	227.00
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	WD_TR	346.23	0.00
tblWater	IndoorWaterUseRate	424,947.20	0.00
tblWater	OutdoorWaterUseRate	27,124.29	0.00

**2.0 Emissions Summary**

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Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.3000e-004</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	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.3000e-004</b>



Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	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	Architectural Coating	Architectural Coating	1/1/2024	1/1/2024	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Generator Sets	7	0.34	227	0.74

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1366	1.0304	0.8840	5.2900e-003		0.0291	0.0291		0.0291	0.0291		500.8938	500.8938	0.0123		501.2023
<b>Total</b>	<b>0.1366</b>	<b>1.0304</b>	<b>0.8840</b>	<b>5.2900e-003</b>		<b>0.0291</b>	<b>0.0291</b>		<b>0.0291</b>	<b>0.0291</b>		<b>500.8938</b>	<b>500.8938</b>	<b>0.0123</b>		<b>501.2023</b>

**Unmitigated Construction Off-Site**

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

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Architectural Coating - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1058	2.0448	2.2916	5.2900e-003		0.0776	0.0776		0.0776	0.0776	0.0000	500.8938	500.8938	0.0123		501.2023
<b>Total</b>	<b>0.1058</b>	<b>2.0448</b>	<b>2.2916</b>	<b>5.2900e-003</b>		<b>0.0776</b>	<b>0.0776</b>		<b>0.0776</b>	<b>0.0776</b>	<b>0.0000</b>	<b>500.8938</b>	<b>500.8938</b>	<b>0.0123</b>		<b>501.2023</b>

**Mitigated Construction Off-Site**

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

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	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	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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					
Fast Food Restaurant w/o Drive Thru	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</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	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
Unmitigated	0.0277	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>		<b>3.3000e-004</b>

Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.1000e-004	3.1000e-004	0.0000		3.3000e-004
<b>Total</b>	<b>0.0277</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>		<b>3.3000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**



Blackhall Generator and Food Truck Emissions - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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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